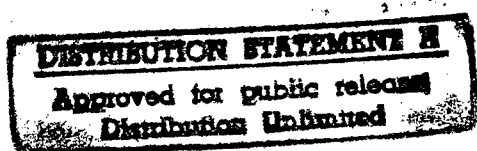


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4 NOVEMBER 1986

East Europe Report



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4 NOVEMBER 1986

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4 November 1986

ECONOMY

INTERNATIONAL AFFAIRS

ROMANIAN CHEMICAL PRODUCTS AT CZECH INTERNATIONAL FAIR

Bucharest REVISTA ECONOMICA in Romanian No 28, 11 Jul 86 p 27

[Article by Dinu Dragomirescu; "The International Chemical Fair at Bratislava - INCHEBA 86"]

[Text] Traditionally carried out in the last 10 days of June, the International Chemical Fair - INCHEBA - organized by the foreign trade enterprise by the same name in Bratislava, has this year reached its 18th anniversary. The importance of this chemicals fair in this picturesque city on the Danube stems not only from its annual nature, but also from the prestige that it has earned over the years. The fair has become a representative event within the framework of international trade through the business contacts that it facilitates, given the presence here of many of the main chemicals companies in the world. The technical-scientific meetings that are organized in parallel serve, for their part, as a useful exchange of experiences.

With reference to the first aspect, let us note that this year's fair had 518 exhibitors (industrial enterprises, foreign trade enterprises, scientific research institutes, institutes of higher education and so forth), of which 235 were from the host country, 111 from other socialist countries (including Romania, represented by two foreign trade enterprises - "CHIMICA" and "DANUBIANA") and 172 from non-socialist countries. For the first time the number of foreign exhibitors was greater than one-half, with these exhibitors numbering one-third more than the previous fair (the increase in their display area being 13 percent), under conditions where the total display area remained unchanged at approximately 36,000 square meters. There was an increase in the number of countries represented at the fair - to 24. Where at last year's fair Brazil participated for the first time, at this recently concluded fair Turkey and Tunisia participated for the first time.

The interest in participating in this traditional event also stems from the important place held by the products contained in the fair's listing, not only in international trade in general, but also in the foreign trade of the host country. The group of chemical products, fertilizers and rubber represented in 1984 approximately 5.5 percent of the exports and 6.7 percent of the imports of Czechoslovakia (4.1 percent of the imports from socialist countries and 17.3 percent of the imports from non-socialist countries), with the Czechoslovak consumption of chemical products still being met by imports at the rate of approximately 20 percent. The ratio between

the value of imported chemical products and that of the export of such products has been reduced from 4:2 in 1976 to 4:3.5 in 1985. Currently, Czechoslovakia exports approximately 17 percent of the production of this branch.

For our country - where the production from the above-mentioned group of products holds a high percentage (10.8 percent of exports and 6.9 percent of imports, in 1984), under conditions where chemicals account for 10.6 percent of industrial production and scientific research in this field enjoys a wide international prestige - representation at such an event has become traditional, being awaited with interest.

According to a preliminary review, the value of the contracts concluded with the Czechoslovaks at this current fair exceeds 4.1 billion Crowns (with imports representing 2.7 billion Crowns, of which 2.4 billion are from socialist countries).

The fair is represented by six specialized groups of products: 1) the chemicals industry and the processing industry; 2) processing ores for primary metallurgy and the silicates industry; 3) the pharmaceutical industry, biochemistry and the production of devices for the field of public health; 4) machinery, devices and installations for the chemicals, cellulose and paper and silicates industries, equipment for environmental protection and the improvement of working conditions, and the better use of secondary materials; 5) intellectual features and non-material goods; 6) protective devices and techniques against corrosion and for treating surfaces.

The rapid rate of updating and modernizing production - characteristic to the chemicals industry - could not but also place its imprint upon the structure and orientation of the Bratislava fair. The organizers wanted it to reflect as well as possible the newest advances of technical-scientific progress, with respect for the social-economic exigencies of the current situation. In this regard, we should note the ever more important place within the fair for products and technologies from the field of biochemistry, as one of the most dynamic branches of contemporary chemistry. An important role is also played by the fair in accelerating the process of better using raw materials, including secondary materials, and of processing solid, liquid and gaseous chemical wastes, as well as in spreading certain technologies that are small users of raw materials and energy and which will eliminate wastes. In this manner, they have tried to also respond to another especially current wish in the industrialized countries, including Czechoslovakia - the prevention and combatting of pollution in the environment. Let us note here that the funds allocated for this purpose in the current five year plan of the host country (at least 17 billion Crowns) are double that of the preceding five year plan.

For the broad public, the fair offered a convincing picture of the important place that the chemicals industry currently holds in economic-social affairs. With a natural interest, visitors went to the pavilion which hosted the exhibit of consumer goods for the household and for cosmetics, bringing together the products of the chemicals industry from the CEMA member nations and Finland.

In Romania's display, one could see here the product which won one of the 32 gold medals awarded at the fair to this category of products from the above-mentioned socialist countries - the aftershave lotion "Shah", containing chlorophyll, produced at the "Nivea" Enterprise in Brasov. We should mention that the winning products were selected from 140 articles proposed by the exhibitors. Similarly, 15 gold medals were awarded to certain chemical products and technologies of industrial, agricultural or medical use, and to certain devices for the chemical-pharmaceutical industry, evaluated as representing peak achievements of production and scientific research in Czechoslovakia and in the other countries and, similarly, selected from a record number of "candidates."

The development of the chemical industry and the assurance of an increased competitiveness to the products of this branch on the international marketplace today depend to a decisive degree upon the intensification of scientific research and the consistent and effective application in practice of the results of this research. In this manner, we must explain the presence both in the pavilions of the host country and in those of the other countries of displays presenting the newest achievements of certain research institutes, institutes of higher education, departments from academies of science and so forth, including from Bratislava, as well as the interest of the participants for the parallel events having a scientific nature. Among these, we can mention, first of all, the sixth international congress dedicated to innovation in the production and use of chemical fibers - FIBRICHEM 86 -, organized by the Czechoslovak Society of Technical Sciences in cooperation with "Slovchemia," which is the largest central in the chemical industry in the host country, having, among other things, six research institutes. During the period of the fair, in Bratislava there also was an international congress dedicated to the techniques for protection against corrosion and the treatment of metallic surfaces - INTERANTIKOR 86. The theme of the congress was of great interest, if we keep in mind that - as a fair press bulletin noted - the damage caused each year by corrosion in Czechoslovakia alone is estimated at approximately six billion Crowns. Among the list of reports presented at this congress I also noted a sufficiently numerous Romanian participation. During the same time period, the international symposium INTEREKOTECHNIA 1986 also took place, to which over 100 specialists from Europe and the United States went and discussed the possibilities of improving the state of the environment by improving the technologies for the continuous measurement and observation of the quality of the biosphere. Medical personnel visited with interest the exposition INPHARMED 86, presenting new medicines, treatments and medical devices to combat certain "maladies of civilization," such as, for example, cardiovascular diseases. The range of accompanying events included, among others, a film festival-competition for movies and television - INCHEBA FILM - whose role it was to present methods or technologies that were impossible to actually demonstrate at the fair.

As an expression of the increased scope that this traditional commercial and scientific event will take on in the coming years, there is the current on-going construction on the other bank of the Danube of a new, more expansive fairgrounds that will be the future host each June to the International Chemicals Fair at Bratislava.

ECONOMY

ALBANIA

NEED FOR BETTER UTILIZATION OF MINERAL RESOURCES SUGGESTED

Tirana ZERI I POPULLIT in Albanian 19 Jul 86 p 2

[Article by Ilia Telo of the Institute of Economic Studies]

[Text] Our country's ore extracting and refining industry bears important responsibility in the industry and people's economy of the land. Functioning today are dozens of mines, several factories for the enrichment of ores and also plants for their smelting and further refinement. The production and export of ores and metals has been increasing.

The draft directives of the 9th Congress of the Albanian Workers Party for the 8th 5-year plan (1986-1990) forecast further increases in the extraction of ores by the expansion of existing mines and putting new mines into operation. The increased extraction of ores makes possible a rapid increase in the products of ferrous and non-ferrous metallurgy, products of the chemical industry, products for export, etc.

The current conditions of socialist construction in our country, relying fully on our forces and on the deepened and expanded utilization of our resources, show the obligation to seek ways and unexploited reserves to increase the quantity and the quality of ores and the effectiveness of production in their extracting and refining, in such a way as to meet the needs of the economy with as little expense as possible. The problem is presented so that without underrating the indices of production and volume of work, closer attention may be paid to the techno-economic and financial indices, from geological exploration to the extraction of ores from underground and their refinement up to the preparation of the finished products.

In the 7th 5-year plan the geology workers gave to the people's economy more reserves of copper ore, iron-nickel, coal, bauxite etc. But the draft directives of the 8th 5-year period foresees a multitude of tasks for the geologists. In comparison with the past 5-year period, they will augment the rich reserves of chromium ore 70 percent, of copper ore 30 percent etc. This will be achieved both by increasing the volume of geological operations, and by increasing their effectiveness. For the increased effectiveness of borings in geology, the good experience of the 7th 5-year period constitutes an important reserve. For copper ore the index of effectiveness was fulfilled 128 percent. A positive example was given by the collective of Mirdite

geologists who with the volume of work in 4 years fulfilled and surpassed the geological tasks specified by the 5-year plan.

The interest of the people's economy requires that life of existing mines which are being exploited be extended. Precisely for this reason geologists must intensify the work in these mines and their vicinity and speak authoritatively about the prospects for each mine. For this, along with the increased level of scholarly and scientific work, another direction of the geologists' work during the years of the 8th 5-year plan is the strengthening of the technical and technological discipline of work for the fulfillment of tasks for drilling and other operations.

The issue is to eliminate the poor practice of some geological enterprises where as a result of the failure to achieve the well-month drilling speed index the drilling plan was not fulfilled. Let us not forget that the material resources and manpower are given to the geological enterprises in order that they may fulfill the volume of drillings. Therefore, along with the fulfillment of the reserves plan the tasks set for drilling and the volume of work must also be fulfilled.

Comrade Enver Hoxha in his book "For the Seventh 5-Year Plan," in analyzing the problem of profitability in the copper industry emphasized, "I believe that we shall get to the bottom of this problem. The profitability can increase in this branch by augmenting the chemical by-products which may be extracted from the so-called residue of copper ore, by improving the technology of enrichment and refinement." For the implementation of these instructions which also deal with the extraction and processing of other ores, mine workers without lessening attention to fulfilling production tasks, have a wide field of operation. First of all, the fulfillment of the tasks of the moment must be combined better with those of the future. This means that along with the fulfillment of the plan for the extraction of ore, the ore operations which prepare reserves and guarantee the production of future periods will not be underestimated. As a whole the copper mines are well prepared to confront the great production tasks of this 5-year period. But in certain chromium mines during the past 5-year period the fulfillment of the plan of mining operations has been underestimated, which has caused difficulty in fulfilling the production plan these recent years. This has been and still is the source of the irregular pace noticed in these mines and it must be eliminated. And the foundations for this are laid in the plan which is drawn up and the objectives which are set.

Current conditions of the socialist construction of our country require that priority be given to the discovery and utilization of rich ores, certainly without underrating also the poorer ores. Having concrete tasks besides geologists are mine workers who by lowering the impoverishment factor also have their task of raising the quality of production. The miners of the mines of Kurbnesh, Kacinar and Perlat in Mirdite district, in the first 6-month period of this year, gave considerable amounts of metal above the plan by lowering the planned factor both of impoverishment and of the improvement of the quality of production. But in certain other mines the impoverishment was higher than the plan. Therefore by strengthening the technical and scientific discipline,

the specialists at headquarters and of the institutes should think through and orientate a planning on the basis of experience and the most advanced technologies which reduce the perceptible losses caused to the economy during the exploitation and up to the transport of the ores. We emphasize this because in spite of the fact that in recent years the loss factor in exploitation has dropped, yet in some mines like that of Spac and Derven in Mirdite District and certain other mines, the losses are greater than those in the plan.

In the 14th plenum of the Albanian Workers Party Central Committee and during his visits in Mirdite District Comrade Ramiz Alia gave important instructions for the improvement of the techno-economic indices in the extraction industry and especially in the ore processing industry. Precisely for this reason the reduction of technological losses in the ore processing industry is the important direction of the work during the 8th 5-year period. The orientation of the discussion for intensifying the measures taken up to now for higher achievements and objectives is dictated also by the fact that in the chromium enrichment plant at Bulqize, in the plant in Kalimash, in the copper enrichment plants at Reps, Fushe-Arrez and in Rreshen, in the copper plant at Lac, in the Ferro-chromite plant in Burrel, the technological losses have been excessive, because the planned index of recovery was not reached. Such a thing has reduced the finished production and has contributed to the deterioration of other work quality indices. The production losses amount to several million leks output.

The fact that in the first 6-month period of this year in some industrial enterprises, the processing of ores has improved visibly in comparison with last year is a positive development. Thus the workers of the copper enrichment plant at Kurbnesh have improved recovery 1.2 percent compared with the plan, the workers in Rreshen, 0.3 percent, etc. In the Rubik plant they came very close to the planned recovery, whereas at the copper enrichment plant at Reps the recovery realized is about 8 percent below the tasks of the plan.

These are some of the directions where workers of the mines, geology and processing industry will certainly discuss and determine measures to improve the organization of the work, the discipline, the technology and the scientific level for defining the high objectives not only for production, but also for the quality and techno-economic indices of the work.

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ECONOMY

BULGARIA

ACHIEVEMENTS, LONG RANGE TASKS OF MACHINE-BUILDING INDUSTRY

ZMM Activities

Sofia ARMEYSKA MLADEZH in Bulgarian No 8, 1986, p 4

[Text] The name of the ZMM, Sofia is known on all continents.

There is no enterprise in our country which does not use at least some of the metal-cutting machines manufactured at that plant.

The plant's output is exported to more than 70 countries, including industrially developed ones, such as the USSR, the GDR, Czechoslovakia, the United States, France, Italy, Japan, Canada, etc. The list is too long to be given in full. However, this also entails a great responsibility on the part of any producer who cares for his reputation on the international market.

This plant developed and is manufacturing a long list of metal-cutting machines, such as lathes, milling, grinding, shaping, drilling, and building-block machines and automated lines. It is described as the mother plant of an entire major Bulgarian machine building subsector, for the machines it has developed are the main production assets of many Bulgarian plants.

Today its workers and specialists complete in 2 days the program which the ZMM was assigned for the entire 1956.

Powerful metal structures are already outlining the shape of a supermodern shop, the design of which calls for unmanned production. Naturally, unmanned production is merely one, albeit most important, element in the updating and reconstruction currently taking place here. Two modular automated production systems (GAPS) for flat and cylindrically shaped parts are currently being installed. Both the machines and the electronic controls of the system are Bulgarian made. Actually the GAPS is a concept which until recently had to be explained to the public at large. Within a single year, however, it has become the basic acronym of a Bulgarian scientific and technical dictionary. What this acronym "conceals" is a multiple increase in labor productivity, new working conditions, development of new skills, and unquestionable quality and reliability of output, secured through active control of each individual operation. Most important, GAPS also implies the use of new technologies....

On the basis of the traditions it has developed, the Metal-Cutting Machines Combine has become the main producer of machines with centralized programmed control (TsPU), lathes, processing centers, machine units and automated technological modules, technological lines and automated machine sets. Today it solves not isolated but comprehensive technological problems with the help of automation of machining, assembling and control and the use of contemporary progressive technologies. The use of microprocessors in controlling the installations manufactured at the plant makes the latter more flexible and reliable and broadens their technological possibilities.

The SP503 TsPU lathe, the MS032 machining center and the TsM080 processing center are some of the items produced by the plant. For example, the TsM080 is a modern machine used in the overall processing of large-sized flat-form parts. It can be used as a part of modular production systems. The TsM080 machining center can process with high accuracy apertures, flat surfaces and surfaces with a complex design, using an automated work cycle. The features of all other items it produces also display high-level technical possibilities.

The production and assembling of machine units and automated lines take place in one of the largest buildings in the plant. The ZMM-Sofia pioneered the designing, manufacturing, assembling and use of such metal-cutting systems. So far the plant has produced more than 1,300 combined and special machines and more than 20 automated lines for a great variety of purposes. The ZMM annual program now calls for the development of more than 150 combined and specialized machines and more than 15 automated lines. This output is essentially used in the manufacturing of diesel engines, motor- and electric-car manufacturing, railroad transportation and others.

The plant is already producing retunable machine units and automated lines. It is developing and undertaking the production of elements for modular automated production systems. The rich experience acquired by the plant in the development of machines equipped with TsPU and the successful use of highly integrated microprocessor elements in control systems are prerequisites for the production and application of flexible systems.

Whereas here so far machines were used to reproduce machines, the time has now come for the GAPS to reproduce itself. This is neither a paper idea nor fiction. The initial "domestic" use systems of this nature will be followed by others which will be shipped out to the various plants in the country. At first it is a question of unmanned shops and the automation of production processes. This leads us to a characteristic paradox: the human presence becomes more necessary. This time, however, man will act not as another unit but as the maker and creator of something much more advanced which, although working night and day, with high quality, tireless, and without making errors, will actually be "breathing" exclusively with the help of man. That is probably why the most difficult problem is finding highly skilled cadres.

In terms of scale, today the ZMM-Sofia is among the large metal-cutting machines plants in Europe. It maintains a permanent condition of dynamic development as it expands and is modernized and improved continually. The current reconstruction indicates the objectives of which the Sofia machine

builders have set themselves -- the overall updating of design, production and application processes.

By the end of last year an agreement was concluded for the creation of two joint Bulgarian-Soviet scientific-production machine building associations. The first will be between the "50 Years of USSR" in Ivanovo and the ZMM DSO. Five of our plants have already begun work on the joint assignments undertaken by this international association. Leading among them, as usual, is the ZMM in Sofia. Its possibilities have been accurately assessed by the Soviet specialists.

Yes, this is a great labor collective with established positions and faith in its strength and possibilities, firmly marching on the path of the scientific and technical revolution. The new quality of labor, with the use of advanced technologies, is assuming increasingly realistic dimensions in this plant whose name has already become descriptive in our country when it is a question of pioneering and innovation in machine building.

Quarry Materials Enterprise

Sofia ARMEYSKA MLADEZH No 8, 1986, pp 6-9

[Article by Plamen Khristov]

[Text] The Extraction and Processing of Rock-Lining Materials (PDOSM) Enterprise includes three quarries: for granite, marble and rhyolite, and a shop in Vladaya village. Its virtually entire output goes to important buildings, such as the Sredets National Arts Gallery, the Lyudmila Zhivkova People's Palace of Culture and many other projects in Veliko Turnovo and other cities in the country. The materials are processed into slabs of the necessary dimensions and thickness and a variety of stone goods, such as curb stones, steps, and architectural details. Some of the rhyolite and marble is exported.

The strict requirements of our socialist present and the tasks formulated in a number of party documents on improving the architecture, aesthetic shape and landscaping of our cities and villages in connection with molding a harmoniously developed and spiritually rich individual, are welcomed with a feeling of responsibility by the collective of this enterprise, the output of which is based on scientific and technical progress. The main objective of the workers is to guarantee their overall implementation through their counterplan. Their efforts are concentrated in two main areas: the use of highly efficient equipment and vanguard technologies, and the rapid application of rationalization suggestions.

Since the beginning of the year new machines, the socioeconomic benefits of which will total 310,000 leva, have been installed. The Struma-2500 second stone-cutting disk machine was installed in February, thus doubling the production of granite slabs and making the manual work of four workers unnecessary. The machine is controlled by a single operator. Socioeconomic benefits of 280,000 leva annually are expected.

Also from the beginning of the year the rebuilding of diamond-cutting tools was undertaken. Until then entire disks had to be imported from Italy, Belgium and the FRG. Now all that these countries supply are the diamond segments, which are being glued to the rebuilt metal disks. The enterprise cooperates with the Scientific Production Metal Ceramics Combine in Sofia, which has already begun to produce diamond parts. This will reduce their import and save valuable foreign exchange.

The Struma-2-600 granite disk cutter has also been installed. This has improved the quality of the granite slabs and achieved exceptional cutting precision. In the last quarter of the year an automatic granite grinder and automatic grinding technology will be installed. This will update the output of the enterprise in Vladaya.

In accordance with the plan for scientific and technical progress, by the month of May ten projects were implemented, most of which by enterprise rationalizers. Anticipated economic benefits will total some 20,000 leva. Two developments are particularly relevant: "Changes in the System Determining the Length of the Run of the Cart of the Struma-D2," developed by mechanic Georgi Dimanov. This will compress the working time of the machine and yield economic benefits totaling 4,000 leva. The second is that of milling-machine operator Georgi Krustev: "Taking the Struma-2500 Hydraulic Distributor Outside the Cabin." The effect of its application will be social: the noise in the cabin will be reduced substantially. In the past few years the social results of scientific and technical accomplishments are assuming an importance equal to that of economic results. The use of the "Automated Grinding of Granite Slabs" will eliminate manual labor and the attachment to the stone-cutting machine for the automatic removal of the sliced slabs will save thousands of foreign exchange leva.

A characteristic feature of the creative efficiency of the rationalizers at the enterprise is their steadily increasing number, in addition to the increased value of their suggestions which offer a number of advantages: improvements are consistent with specific requirements, and economic benefits are higher and achieved within a shorter period of time. The fact that an increasing number of workers are joining the invention and rationalization movement indicates their direct involvement in production management.

The technical and economic council organized an open review of workers' suggestions at which the most efficient among them, those which contribute to the implementation of the counterplan, are determined. The process of application of rationalizations here is short, taking no more than 3 to 4 months after a suggestion has been submitted. Developments pertaining to structural production changes are adopted quite rapidly. As Krasimir Rusev, deputy director of the PDOSM assured me, so far no deadline has been violated.

The undertaken modernization and reconstruction of the enterprise can yield the same results as an overall replacement of mechanisms and equipment but at a considerably lower cost. Thus, for example, the development of the suggestion submitted by Damyan Damyanov, Kiril Nikolov and Stoyan Stoyanov, milling-machine operators, on "Use of Discarded Hose in Work with Stone

Processing Sledge Hammers," involved minimal funds which, in turn, allowed the use of more funds to stimulate scientific and technical progress.

It has become a tradition in recent years for the plan for scientific and technical progress to be implemented 130 percent, which puts the enterprise in a leading position in terms of the efficiency of applied worker suggestions within the system of the Extraction and Processing of Quarry Materials Economic Combine.

Machine Building Priority

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 3 Sep 86, pp 1,11

[Article by Krustyu Stanilov, deputy chairman of the Council of Ministers Economic Council]

[Text] The 13th BCP Congress formulated the strategy of accelerating the pace of our economic development, which was further developed and concretized in the document drafted under comrade Todor Zhivkov's guidance: "For a Qualitatively New Growth of the Economy." Today our main task is to work with dedication and persistence in order to reach a qualitatively new economic growth in the country on the basis of the scientific and technical revolution. This task is consistent with the crucial nature of our times and plays a particular role in the destinies of our country, its future development and the life of our people.

Structural Changes

Once again machine building as the strategic development trend is the core of economic growth. During the current 5-Year Plan our economy will rely to an exceptionally large extent on this sector, which must lay the foundations for combining electronics with industrial technology. It must master and turn into reality at a faster pace the most progressive development of Bulgarian and world science and engineering, converting them into equipment and technologies which will guarantee high quality, reliability and productivity. This will enable us to implement a new specific technological policy on the basis of our own achievements or through scientific and technical integration with the USSR and the other CEMA members. Such integration has been contemplated also in the Comprehensive Program for Scientific and Technical Progress of CEMA-Member Countries Until the Year 2000. It is the base which we shall use in order to implement a coordinated and, in some areas, also a unified scientific and technical policy.

The priority given to the development of machine building as a strategic sector in the 9th 5-year period gives priority to the pace at which it develops. That is why after the 13th Party Congress we are undertaking the implementation of changes in production and commodity structures and to accelerated technological reorientation and retooling. During the 5-year period the production of economic organizations whose output ensures the updating of equipment and technological retooling of machine building and the other economic sectors will increase at a faster pace. In this manner the machine builders will make their contribution to the efficient advancement of

the structure and technological retooling of the national economic complex, the further intensification of foreign economic relations and the implementation of the scientific and technical policy in all main strategic areas of the national economy.

Our output in the future and the implementation of the task of decisively reducing resource intensiveness of output and achieving technological, market and product breakthroughs can be attained mainly on the basis of combining machine building with electronics. This will ensure the national economy with a high level of electronic and automated development of items and technologies. Furthermore, we shall create conditions for a gradual conversion to computer-integrated production systems. Such highly productive equipment will enable us continuously to upgrade labor productivity.

Priorities

The programs which we drafted for the 9th 5-year period are realistic. They were created during the 8th 5-year period, when we began to work on a number of new items, the volume of which will continue to increase. This includes the KAD systems, which we shall develop on the basis of our computer technology. Their application will cover the overall activities of the machine building sector. We are completing the process of mastering the production and application of flexible automated systems, and automated technological modules and lines. We are relying particularly greatly on them in the acceleration and development of possibilities of retuning technological systems according to changing economic requirements.

Under the conditions of continuing scientific and technical progress, the role of automation, in all its aspects, will continue to grow. Technological automation will become an extensive part in machine and chemical-machine processing, welding, plastic processing, etc. An important aspect of successfully solving the problem of upgrading labor productivity is the technological retooling of assembling processes. To this effect qualitatively new means of automatic assembling were developed and will be applied on a high quality level; the production of installation robots will be developed and lines and sets for the automated assembling of parts, modules and entire items will be introduced.

The strategic trend in the priority development of machine building will also include the development of computer-integrated production systems. This will require improving the production of automated program-controlled production machines and transport facilities. The linking of the systems within hierarchically developed computer networks, however, will be achieved only after the development of a new generation of computers and control systems for robots and production machinery and the development of standardized software products. That is why this will become part of the preparatory operations which will enable us to apply computer-integrated production systems in industry in the future.

In order to carry out the large-scale program adopted by the 13th BCP Congress, it is particularly important at the present stage for machine builders to achieve a drastic upturn in their approach to the use of new

equipment and technology. The flexibility with which the machine building sector will apply new technologies and technical solutions and will offer them to other sectors will greatly determine our future results. We are already convinced of the need for flexible automated production systems and means for comprehensive automation. All that remains is to use them in the future and to develop them in such a way as to create the necessary objective conditions for accelerating the process of the scientific and technical revolution. In turn, this raises the question of making changes in the economic mechanism in order to create conditions to stimulate application activities by economic organizations. Work on such changes is underway.

During the 9th 5-year period the possibilities of standardization in the development of small production capacities or enterprises will be extensively used in the machine building sector. With their help we shall solve the problem of linking the standardized output of electronic systems and modules with the respective technological machines, specific control systems, control-measuring and testing equipment and others. Industrial electronic systems will become one of the main and, in some cases, the pioneering production facility in machine building during the 9th 5-year period.

Making machine building the leading and structure-determining sector in the national economy requires the accelerated creation and application of new materials with high technical and operational qualities. Extensive use will be made of new types of construction materials, such as rolled low-alloy steels, pressed shapes, complex precision-made profiled items, polymers, metal powders and plastics, etc. Not least, we must extensively and rapidly develop the unification and standardization of output.

A New Approach

The high targets which have been set and the tasks which must be implemented if we are to obtain the desired results require a new method for the implementation of the investment policy in the machine building sector. A new approach is needed in which most capital investments will go into the development of new technologies and technological retooling. This will create the necessary prerequisites for improving production standards and rapidly mastering the production of items in the strategic areas.

Under the conditions of the scientific and technical revolution we must apply new technologies with a high degree of automation. This will require highly skilled and creatively thinking cadres. This directly raises the question of training and retraining people and mastering new skills and specialties. For that reason, in the next few years the machine building sector will continue to increase its requirements not only regarding the scientific standard of technologies and machines but also the people who create and work with them. This applies not only to production cadres but also to the personnel engaged in scientific research and development. It is only thus that we can rapidly turn science into a production force.

As a result of the extensive utilization of the achievements of technical progress and the extensive use of new technologies and materials, substantial changes in the correlation among individual subsectors will take place in the

next few years. This will entail changes in the export list of the machine building industry. We are contemplating increased exports on the basis of technological breakthroughs and improved quality. It is thus that we shall enable the machine building industry to procure the necessary foreign exchange for its own technological retooling as well.

The reorganization of machine building must take place quickly and in accordance with the plans. This will lead to a maximal increase in social labor productivity and in net output on the basis of intensive factors. This will be a guarantee that the priority development of machine building will be entirely consistent with the requirements and stipulations of the 13th BCP Congress on achieving a qualitatively new growth in our economy. It is thus that machine building will participate in the implementation of the economic growth of the country and in the international division of labor and ensure the fuller use of the possibilities for the firm establishment of the sector and of our country as part of the system of socialist economic integration.

Benefits From GAPS

Sofia TEKHNIЧЕСКО ДЕЛО in Bulgarian 16 Aug 86 pp 4, 5

[Article by Sliven Okrug correspondent Ventseslav Gandev]

[Text] The use of robotics in machine building goes hand in hand with the application of new technologies. This is the guiding principle for the specialists at the Dinamo Plant in Sliven in production modernization. The production of parts with cold punching is one of the vanguard waste free technologies used at the plant. Here the material utilization coefficient reaches 95 percent. The development of this system in the near future will be carried out on a new basis through the comprehensive automation of processes. By the end of the year a high-efficiency cold punching production line will be installed. After the semifinished parts are transported to the bunker of the feeding transporter belt, all processes will be automatic. This applies to the punching and the moving of the billets among the individual operations. The parts will reach the working area without human interference. The system of control mechanisms will ensure the uninterrupted work of the line and the quality of the output. Another automated line will carry out almost all cutting operations. This is particularly necessary in the use of non-calibrated rolled rods if the required precision is to be achieved. A fully automated line, with microprocessor control, will be installed for the chemical phosphating process of the billets prior to punching. The capsulized cabin will ensure that the chemical processes are isolated from the shop area. This development is the result of cooperation between the plant and specialists from the TsME in Varna.

The use of such automated lines provides comprehensive technology for the growing share of pressing operations in the production of electric motors at the plant. A line for plasma welding of packets received from the punching line will be applied. This will close their production cycle.

An automated line with a microprocessor control for chemical nickel-lining of microengines, developed on the basis of an invention at the Lenin VMEI, is being tested.

Heat processing of special steels and instruments, and silver and palladium-lining of parts for special microengines, automated balancing of blades of motor vehicle generators and many other important technological processes and operations will be solved on a comprehensive basis. Most of these new solutions are the result of cooperation with our scientific institutes. These developments are comprehensive and thus become powerful boosters of scientific and technical progress at the plant.

Two flexible automated production systems (GAPS) for the mechanical processing of flat body parts and rotary-symmetrical elements and for the hydroplastic processing of cylindrically shaped bodies for starters will be installed at Dinamo in the immediate future. It is hardly necessary to point out the results which these two GAPS will yield. However, a number of problems related to their installations remain.

"Most of the metal-cutting machines cannot be directly connected to the GAPS," said Deputy Director Engineer Nikolay Bozukov. "Let me give as an example the fact that it is impossible to provide a lathe with TsPU for use by the Pobeda Metal-Cutting Machines Combine in Sliven, equipped with a robot and the necessary transport-feeding systems. A similar situation prevails in the case of the other plants for metal-cutting machines with TsPU in Pazardzhik and Asenovgrad. At the Mashstroy Combine in Troyan, where the series manufacturing of lathes operating as automatic-technological modules was applied for the first time, this was achieved only with the use of a robot. It took the combine more than 18 months to link a robot we delivered to it to lathes, thus creating an automated technological module. In the final account, it was unable to do so. Yet such robots are produced also at the Beroe Combine in Stara Zagora. Let me add that no single machine produced in the country has an active control facility, which is extremely necessary in the comprehensive solution of automation problems."

All of this indicates that accelerating the production of one of the structural cells of the GAPS -- the automatic technological module, based on TsPU-equipped machines produced in the country and robots -- is of exceptional importance in the development of complex automation in machine building.

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PETROCHEMICAL PLANT ADVERTISES NEW PRODUCTS

Sofia TEKHNICHESKO DELO in Bulgarian 16 Aug 86 p 14

[Text] The Leon Tadzher Petrochemical Plant specializes in the production of low-tonnage petroleum products.

The plant's nomenclature includes a number of new products for the needs of various economic sectors.

Lubricants:

Lubricants for tracking surfaces of metal-cutting machines, MNM-32, MNM-68 and MNM-220 model.

Special industrial lubricants used for the lubrication of the horizontal and vertical tracking surfaces (parallels) of lathes, milling machines, grinders and other higher- and high-accuracy metal-cutting machines.

These lubricants replace imported products of the Mobile Vactra, Shell Tonna, BP Macurat and other series. Their use allows greater accuracy in the manufacturing of billets and reduces friction.

High-index hydraulic oils of the MXB-22, MXB-32 and MXB-46 brands.

These lubricants are used for hydrostatic lubrication systems and friction mechanisms with circulation lubrication, which require lubricants with high oxidation stability, good protective qualities, increased anti-wear and anti-sticking qualities and very high viscosity-temperature features. They are suitable for open-air hydraulic systems.

They replace imported oils used for similar purposes of the Shell Telus T, Mobile DTE, BP Energo and SXF Castrol Hispin ABX series.

OV-205 wool grease.

This is a new textile greasing substance used for greasing the wool after it has been washed during the carding process. It replaces Ostendol SL and Hemiside, imported from the GDR.

Cooling lubricants:

The new cooling lubricants improve sanitary-hygienic working conditions.

Cooling lubricant liquid for grinding optical glass. This is a high quality non-emulsion cooling lubricant, a suitable replacement for the imported Somentor 43 manufactured by Esso. It lubricates and cools the abrasive cutting tools in processing optical glass.

Rezinol 31 AO cooling lubricant.

This is a highly alloyed cooling lubricant which does not mix with water and is used for the machine processing of high-alloy steels and other alloys on lathes with numerical programming control (automatic lathes).

It replaces the imported lubricant Mobile MET 734.

The Frezol 21 cooling lubricant.

A non-emulsion cooling lubricant used as a technological environment in the machining of aluminum and aluminum alloys and other nonferrous metals with automatic milling machines. It replaces the Mobile MET 451 imported product.

The Rezinol D-21 cooling lubricant.

A non-emulsion cooling lubricant used in deep drilling through steels and alloys, a suitable substitute for the imported lubricant Shell Garia T.

The Leon Tadzher NPZ in Ruse also offers the following products:

OE-8, OE-12 and OE-22 emulsion casings lubricants;

Refrigerator lubricants: Freon KhF-32 and Frigus KhF-22;

White medical and industrial oils and medical vaseline;

Road pitch and special pitches;

Aluminum sulfate -- liquid and granulated.

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STATE OF SHIPS PLYING DANUBE, REPAIR FACILITIES

Sofia TEKHNICHESKO DELO in Bulgarian 23 Aug 86 p 12

[Article by Boyan Dimitrov: "The Danube is Awaiting New Ships"]

[Text] The development of our socialist economy in the spirit of the resolutions of the 13th BCP Congress and the increasingly closer integration ties between Bulgaria and the USSR have set responsible assignments to the Bulgarian River Navigation Shipping Administration (BRP). Nearly 16 percent of our foreign trade is handled by our river fleet. This determines the basic task of the BRP -- to haul faster, less expensively and more tonnage with the help of advanced technologies and modern scientific and technical achievements. However, with the exception of the "Olimpi Panov," "Nayden Kirov" and "Petur Karaminchev" tugs which were imported from Holland in 1983, all other navigation vessels are morally and physically obsolete. Although they have been in active use for the past 46 years, the ships of the so-called "Regensburg Four" are exceptionally inefficient! Whereas fuel consumption of the new vessels is 7 grams per 1,000 t/km, it is 14 grams for the old. The old vessels have a 1 million t/km annual productivity per sailing personnel, while the productivity of the new ships is higher by a factor of six.

Despite the trend of reducing specific fuel consumption, in practice fuel consumption is increasing! This is inevitable, for 30 percent of the ships sailing east have been amortized and only 7 of the ships sailing in a western direction are relatively modern. Meanwhile, river transportation requires the increasingly intensive use of efficient sailing technology -- tugging. The hauling of freight in large containers and of large-size freight is increasing. Combined ro-ro hauling of trailers between Bulgaria and the FRG was undertaken in 1982, using specialized ships which are rapidly assuming leading positions. Cooperation is intensifying among the Dunaytrans Bulgarian-Soviet Transport Company, the Interlichter International Economic Shipping Enterprise and others. With the dynamic development of other countries, our river fleet is frequently inefficient and non-competitive. This necessitates the accelerated use of new multiple-purpose and specialized ships and high-efficiency transport-handling technologies. All of this indicates that we must take energetic measures quickly. The eventual result is the updating of the river fleet. However, this must be achieved not through imports but through possibilities for the development of the fleet at home, for strange though it might seem we, who export ships, do not build river tugs

and self-propelling and non-self-propelling sections. This is a problem which must be solved as soon as possible through the joint efforts of a number of Bulgarian governmental departments and economic organizations.

Another problem which has not been solved over more than 20 years is that of ship repairs.

Currently, ship repairs are made at the repair shop of the Ivan Dimitrov Shipbuilding and Ship Repair Combine. However, its capacity is small. The time needed for basic repairs is about 6 months and should be reduced by one half. Because of this situation the ships must wait a long time before they can be repaired and every year about 10 million leva's worth of production assets of the Bulgarian River Navigation Shipping Administration remain inoperative. A solution to this problem is sought by having repairs done by shipyards abroad which, however, have to be paid in foreign exchange!

After long discussions and after solving innumerable objective and subjective problems, the idea was adopted of building a specialized ship repair plant in Tutrakan. The implementation of this project is under way.

Shall we "Eliminate" Tourist Cruises?

Passenger sailing faces a number of unknown factors. Everyone remembers the huge white ships which were an inseparable part of the sight on the river and of our own river fleet. After 40 years of service, the following ships were taken off the ship registers: the "Georgi Dimitrov" (1978), the "Dimitur Blagoev" and the "Aleksandur Stamboliyski" (1981). The river became an orphan. Today our coastal navigation relies on hydrofoil ships ("Meteor" and "Vuzkhod"). They are convenient and fast but serve only the business travelers. Their main shortcoming is their reduced capacity under bad navigation conditions; furthermore, they are extremely difficult to repair. Conventional passenger ships offer tourists conveniences and comfort. The need for such ships in our country is obvious. The question of procuring them should be solved not on the basis of economic but social reasons. Tourist navigation has been energized throughout the world.

According to forecasts, by the year 2000 the output of the Bulgarian River Navigation Administration will triple. Labor productivity will more than quadruple. In addition to traditional bulk freight, the share of containers, pallets, trailers and roll trailers will increase drastically. The time is nearing when after the completion of the Rhine-Main-Danube Canal Bulgarian ships will be able to expand their range and sail on the waterways of the FRG, France, Switzerland, Belgium and the Netherlands. A connection is planned between the Danube and the Oder and Elbe rivers, which will facilitate our commercial relations with the GDR and Poland. Whether or not this promising development will be used depends on us.

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POSSIBILITIES OF SAVING ELECTRICITY DISCUSSED

Use of Fluorescent Light

Sofia TEKHNICHESKO DELO in Bulgarian 23 Aug 86 p 12

[Article by Prof Razum Andreychin, doctor of technical sciences]

[Text] The most common light sources for household and some public use in many countries throughout the world are ordinary light bulbs. They are inexpensive, their production technology has been suitably mastered, they require no transformers and their spectrum is similar to that of daylight. Their life span is relatively short, about 1,000 hours.

The main reason for which we replace incandescent light bulbs with other light bulbs is their uneconomical nature. Their light output ranges between 8 and 18 lumens per watt, depending on the power used. This low efficiency is the result of the low (2,000 - 2,500 degrees Centigrade) temperature to which their tungsten wire is heated. As a result, more than 80 percent of their radiation is in the invisible infrared area.

An increase in the output of light by about 10 percent is achieved by filling the bulbs with krypton, for the low heat conductivity of the gas reduces heat losses. Also quite popular are bulbs with an internal reflector. They direct the light toward a relatively narrow cone in which radiation is two to three times higher. The front of some of these bulbs is made of glass, which retains some of the infrared rays, thus reducing the heat effect. In the case of some bulbs the entire glass is made impermeable to such rays. This requires less power to heat up the wire.

At higher temperatures the tungsten used in ordinary incandescent bulbs evaporates. A method used to increase its heat by 200 - 300 degrees is the use of iodine [word missing] which returns the evaporated tungsten back to the wire. This is found in the now-popular halogen lamps, whose light output ranges between 20 - [figure missing] per watt. They are applied for projecting purposes and in automobiles. To this day, however, they are [not] used in household lighting because of their special shape and conditions of use -- the horizontal location of the tube.

The various improvements made cannot substantially increase the economy of incandescent bulbs.

Fluorescent tubes, which are based on gas, are significantly more economical.

The light output of some of them is tenfold higher than that of incandescent bulbs. This is their main advantage. Their useful life is longer, ranging between 8,000 and 10,000 hours, and, in the case of high pressure tubes, from 10,000 to 24,000 hours.

Their production technology is substantially more complex. It requires a special starting and regulating equipment and their fluttering tires the human eye. The interrupted and uneven spectrum distorts the perception of the colors of the objects around them.

Most convenient in small premises are fluorescent lamps with mercury gas at low pressure. Here radiation becomes visible with the help of the luminophore, which lines up the inner side of the tube. Depending on its composition, the color of the light is closer to that of daylight or the incandescent bulbs. The most frequently used lamps range between 20 and 80 watts, with a light output of 30 to 80 lumens per watt.

Recently, fluorescent lamps of a smaller diameter -- 26 instead of 38 millimeters -- have been manufactured as well. Their light output is about 10 percent higher.

So far, high efficiency has not been achieved for these lights. Developments have concentrated above all on their shape. Curved and round lamps have become widespread. This has reduced their dimensions substantially. In a number of cases their compact (round or cylindrical) shape is related to the development of electronic starting and controlling equipment. Such equipment is located in the socket of the ordinary incandescent bulb. The fluorescent lamp is simply fitted to the ordinary socket and, without any additional complexities, yields more light by a factor of five or six.

There is a great variety of such lights. The improved spectrum, form and light output will enhance their significance in lighting household and public premises.

Lamps with a high light flow and a power of up to 2,000 watts are used in lighting large administrative and industrial projects, streets and roads. These are high pressure fluorescent lights.

Lesser use is being made of high-pressure mercury lamps. Although some red components are added to the luminophore, the mercury spectrum dominates and the light remains unnaturally greenish. Such lamps are more economical than the incandescent bulbs by a factor of 4 (light output ranging between 50 and 60 lumens per watt). Their future use will be mainly in places where color is not all that important.

Metal-halogen lamps offer better coloring and a higher light output (80 - 100 lumens per watt). They are basically mercury lamps but also include the halogens of some metals (indium, thallium, scandium, dysprosium). They yield additional stripes to the spectrum, which becomes uninterrupted and quite similar to natural daylight. Despite their good qualities, such lamps are not being produced in our country and are rarely found.

The most economical powerful light sources without any particular color qualities are the high-pressure sodium lamps. Their light output ranges between 100 and 140 lumens per watt, which is higher than that of incandescent bulbs by a factor of eight (electric power savings by a factor of eight). It is only their yellow-orange light that blocks their mass use. Possibilities are being sought of using other gases and additives to reach the still theoretical and distant level of several hundred lumens per watt.

Considering the present state of traditional and new light sources, their suitable use appears as follows:

In small premises (rooms, halls, passageways, warehouses, and others, where color is important, fluorescent;

In large premises (shops, work areas, etc.), streets, squares and roads, if colors are important, metal-halogenic and, wherever it is not, sodium high-pressure.

Future developments are difficult to predict, for both the shape and efficiency of the various types of lights are being improved. New sources of light are also being sought. Laser lights, light diodes, and others have already been developed but not applied as yet in lighting equipment.

Light Planning

Sofia TEKHNIЧЕСКО ДЕЛО in Bulgarian 23 Aug 86 p 4

[Article by Engineer Bratan Ninov]

[Text] There are architectural-construction solutions which allow a greater use of natural lighting which has better quality indicators than any artificial light, costs nothing and requires no maintenance. In more specific terms, this means increasing the area of windows and the use of glass partitions.

Maximal use must be made of the system of mixed artificial lighting. This means a minimal general lighting level covering the entire area, much higher in specific areas where control over the parameters of the technological process is provided on a continuing basis.

The power grid is designed such as to be maximally flexible. It must make it possible to turn off the light in some areas of the production shop after the end of the work shift without any disturbance to the continuing labor process. In some grid areas gradual and sectorial lighting is used, depending on specific requirements.

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The successful use of steps to reduce electric power outlays largely depends on the energy indicators of the lighting bodies and their efficiency.

We are familiar with the existing disparity between the desire to save on light in industrial enterprises and the actual situation. This is due to objective and subjective reasons. Sectorial standards of artificial lighting are not being promptly applied.

Designs calling for high energy outlays for light are not being penalized and quality designs in this respect are not being encouraged. For that reason designers are totally uninterested in economy. The problem is also underestimated because the share of capital investments and operational expenditures for lighting systems is low.

The designing of economical lighting systems mandatorily calls for a detailed and profound study of technological processes, work places, the nature and features of the various operations and the production organization, etc. However, such studies have remained a matter of the personal attitude of the designer. They are not regulated and no time is allocated for them.

Economical Street Lighting

Sofia TEKHNIЧЕСКО ДЕЛО in Bulgarian 23 Aug 86 p 5

[Article by Engineer Stefan Trashliev]

[Text] In addition to dealing with the electric power supply of Sofia and contact grids for the city electric power transportation system, the Electrification Department of the Main Lines and Engineering Installations Directorate of the Sofproekt KNIPI designs external lighting systems as well. You may think that this is entirely standardized: poles on one or both sides or in the middle of the street, since Bulgarian state standards define precisely both the distance between poles and their even location and average amount of outside lighting. Where is the problem?

It is true that BDS-5504 of 1982, entitled "Lighting of Streets and Pedestrian Zones. Technical Specifications" largely covers the matter. What remains unanswered is the question of how to transform electric power into light more efficiently. The final word here is that of sources.

Replacing mercury with sodium high-pressure lamps in a 2:1 ratio provides the same amount of light and reduces power consumption by one half. This has already been done on some streets in Sofia. In most areas, however, the source is single, for which reason this ratio must be applied to the power, we were told by engineer Nikola Girginov, chief of the Electrification Department.

The hitch in such activities is the lack of a variety of lighting bodies.

Such items are produced exclusively for sodium lamps of 350 and 400 watts. This leads to the idea that they should replace mercury lamps which are twice as powerful but which are not used. What we need most are 150-watt lamps,

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engineer Girginov said, to replace the 250-watt mercury lamps which are most commonly used.

The Svetlina plant in Stara Zagora is the only enterprise in the country producing lighting items. In this sense, it has no competition. However, designers and, most probably specialists in the operation of subsystems have noted many of its shortcomings. We know that the role of a lighting body is to redistribute the light. This is accomplished above all through its reflector. However, in the short time that it takes for the aluminum, of which it is made, to oxidize, its reflecting capacity virtually disappears. The diffuser (usually a plastic part set under it) should spread the light evenly on the street. Inside a plant it probably works properly. After a few months in the open, however, it is no longer functional.

The two step system is the most economical.

In all areas where the light intensiveness exceeds 1 candle per square meter the standard calls for full-night and half-night lighting.

The idea is the following: up to a certain hour during the night all bulbs will be lit, after which, when there is virtually no traffic on the street, automatically one half or some (per pole) will be turned off.

This means that designers can achieve further savings. Is it justified, therefore, to save on electric power essentially through organizational steps before the available technical facilities and planned designs have been used?

Reducing Power Consumption

Sofia TEKHNIЧЕСКО ДЕЛО in Bulgarian 23 Aug 86 p 5

[Article by Valentin Lazarov]

[Text] Between 1983 and 1985 electric power expenditures for street lighting in Sofia dropped from 47.3 megawatts per hour to 27.6 megawatts; a further reduction is expected this year. Steps were formulated and are being strictly observed for such savings. Replacing mercury with sodium lamps is an exceptionally efficient step. A 250-watt sodium lamp can replace two mercury lamps; power consumption is reduced by one half for the same amount of lighting. So far one-seventh of the lights have been replaced. Greater use is being made of a cable grid, as a result of which the lights can be turned off every second pole, we were told by engineer Ivan Chaney, deputy director of operations at the External Lighting SP of the Systems and Means of Organizing Traffic Safety Combine in Sofia.

Unquestionably, these steps reduce unjustified electric power expenditures. However, their comprehensive utilization requires both manpower and equipment. Greater Sofia has 72,000 light bodies which form a grid 2,300 kilometers long. The External Lighting SP, however, has a personnel of 125 people, 72 of whom are electricians. They have at their disposal 6 motorized platforms (only one is fully operational) and 11 automated ladders (5 in good condition) and a mobile laboratory for the detection of cable damages. Clearly, there is an

acute problem with mechanization facilities, which can be solved by the Sofia City People's Council.

The enterprise has operated for one year as an independent unit and is still experiencing major personnel difficulties. A great percentage of the workers are pensioners. Few young people are electricians and, for the time being, no new reinforcements can be found.

The division of obligations is also contributing to the lack of solution of problems. Outside the transformer, the power grids are serviced by two different enterprises. "We split the current into two," said electrician Vasil Dilov. This frequently hinders the work of the specialists of the External Lighting SP because of poor coordination.

Since 1980 close ties have been established with specialists from the Lenin VMEI in Sofia. A list of operations was drawn up and their timing was precisely established; the necessary personnel and equipment needed for maintaining the existing cable and above-ground grid were listed. As a result of such cooperation, a radio control of external lighting is being installed, developed by the VMEI collective, headed by Professor Nikolay Vasilev. Using radio waves broadcast from the central broadcasting station, with the help of retranslators, two-way automatic connection is established with 2,000 radio receivers which turn on the lights throughout the city. The system allows the switching of lights in various districts or individual sections within them, and turning on the lights on every second pole from the dispatcher center. A retranslator is already at work and by the end of August two others will be made operational. There are 40 receivers and an improvised transmission station and, within the time we stipulated, the central station will be completed as well.

The personnel are frequently criticized for the fact that between 50 and 100 lights are kept on during the day while breakdowns are repaired. The explanation provided by engineer Ivan Chanev is the following: "No solution to the problem has been found throughout the world. In the use of local power supplied by a machine unit installed on a motor vehicle gasoline expenditures would be greater than the amount of electric power saved."

A number of unsolved problems of street lighting in Sofia remain. Some of them can be solved through scientific and technical progress. Others, however, are purely organizational or personnel problems. It is a good thing to divide the current into two parts, but not between different departments but between consumption and conservation.

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STATISTICAL DATA ON COAL MINING

Sofia POLITICHESKA AGITATSIYA in Bulgarian No 15, 1986 pp 42-43

[Text] Labor mechanization in the coal industry is a basic factor in the production process. Strip mining has been entirely mechanized. This significantly increases labor productivity and facilitates the miners' work.

In the last 4 years alone the number of comprehensively mechanized and automated sections, shops and production facilities in the coal industry increased by 46 percent while mechanized and automated assembly lines, by 42 percent (in 1985, compared to 1981).

Capital investments are being steadily increased in expanding the material and technical facilities in the sector. During the 8th 5-Year Plan alone (1981-1985) a total of 1,141,700,000 leva were invested in the coal mining industry or quadruple the amount of investments during the 6th 5-year period (1971-1975).

Between 1961 and 1985 mines were opened with an annual extraction capacity of 40,386,000 tons of coal.

By the end of 1985 the coal industry had capital assets worth 1,875,000,000 leva or more than in 1970 by a 2.4 factor.

The capital-labor ratio in this sector is increasing. Whereas in 1970 industrial production assets per worker (average annual availability) totaled 19,124 leva, by 1985 they had increased to 46,457 leva. Their renovation coefficient within the same period more than tripled and their increase totaled 15 million leva in 1970, rising to 103.8 million leva in 1985.

The power-labor consumption of the miners increased significantly. Thus, the installed overall capacity per worker increased from 16.6 kilowatts in 1970 to 23.0 kilowatts in 1985.

As a result of the application of a number of factors, the labor productivity of the miners has been growing steadily. Compared with 1970, labor productivity per worker in 1985 was 11.3 percent higher.

Today this sector employs nearly 38,000 workers. The number of highly skilled specialists has increased as well. There were 84.2 engineers and technicians per 1,000 workers in 1985, compared with 79.6 in 1970.

Compared with 1970, the 1985 output of the coal industry was 10.4 percent higher.

The tempestuous development of power production was the main factor in increasing coal extraction. Our main deposits in the Maritsa Basin were developed, accounting for some 70 percent of the country's coal, and so were those of the Bobovdol Coal Basin.

Technologies for the use of low caloric lignites were developed with Soviet help. Such lignite is of great importance in meeting the energy needs of the national economy.

Diagram A

Capital Investments in the Coal Industry, million leva

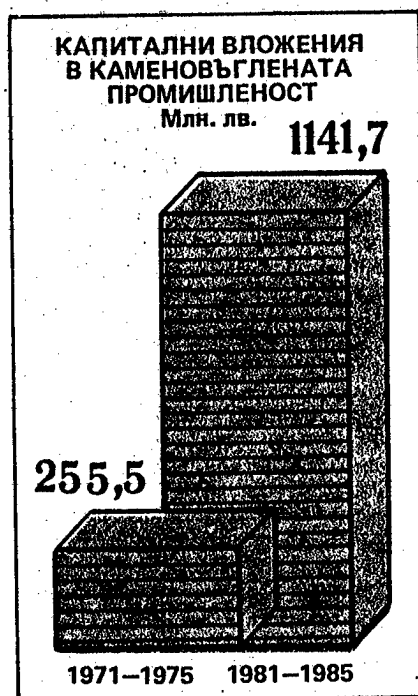


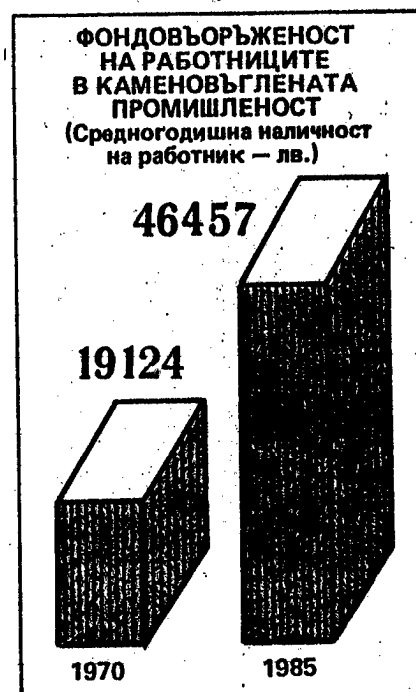
Diagram B

Power-Labor Ratio in the Coal Industry (Total Installed Capacity per Worker, kilowatts)



Diagram C

Capital-Labor Ratio in the Coal Industry (average annual availability per worker, leva)



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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

FACTORY AUTOMATION REDUCES LABOR FORCE, COMBINES FUNCTIONS

East Berlin SOZIALISTISCHE ARBEITSWISSENSCHAFT in German Vol 30 No 4 1986
(signed to press 15 May 1986) pp 241-249

[Article by Prof Dr of Engineering Heinz Hanspach, institute director, and by Prof Dr Ernst Mader, both with the Central Research Institute for Labor, State Secretariat for Labor and Wages, Dresden. Original title: "The Completion of Labor Organization--Prerequisite for the Efficiency Increase of Our National Economy"]

[English summary] The general tasks of socialist labour science after the XIth Party Congress are presented. The increased use of scientific labour organization in connection with the introduction and application of CAD/CAM systems as well as with the utilization of social labour ability are especially outlined.

[Text] The XIth Party Congress of the SED in April of this year drew an impressive balance concerning the realization of the resolutions of the Xth Party Congress and at the same time in the "Directive of the XIth Party Congress of the SED for the Five-Year Plan for the Development of the Economy of the GDR in the Years 1986-1990" it formulated the future tasks. In the solution of the tasks concerning the organization of labour, the following fundamental thoughts should be considered:

1. In agreement with the program of the SED, in the years 1986-1990 the developed socialist society will continue to be further shaped in the GDR. The realization of the task is an historic process of profound political, economic, social and intellectual-cultural transformation (1).

2. The unity of economic and social policy is of fundamental importance to this development. It forms the nucleus of our economic strategy to the year 2000. In keeping with the performance goals of our national economy, which lead above all to a great increase in labor productivity on the basis of comprehensive intensification and the broad application of modern key technologies, even better conditions for the general development of the personality under socialism are emerging with the consolidation and perfecting of the conditions of socialist production.

3. "The policy of the SED is based on the assumption that the individual human being with his talents, interests and needs is the critical factor in the solution of all economic tasks. In this regard, labor is the most important sphere of social life. The socialist character of labor must be expressed universally... By linking scientific-technological innovation processes with the broad application of scientific labor organization (WAO), the new stage of intensive, expanded reproduction requires that the quality and effectiveness of social labor be rapidly developed." (2) This is related to new demands on the organization of labor, the organization of material-technological conditions and on the cooperation of the work force in socialist rationalization.

In the realization of the resolutions of the Xth Party Congress on the modernization of production plant and the formation of closed manufacturing segments, contributions in the areas of scientific-technological progress and scientific labor organization helped greatly in the rationalization of work. In the years 1981-1985, in keeping with the principles of scientific organization of work, 1,163,000 jobs were newly created or transformed in industry, construction and transportation, and over 2 billion work hours were saved. With this increase in performance, the improvement of working conditions was linked for 348,000 workers. Hazardous work and heavy labor were completely eliminated for 142,000 workers. The development in the numbers of reportable work-related accidents must also be viewed as the result of a rationalization policy that is directed towards the well-being of people. Thus the accident rate in the GDR (number of work-related accidents subject to report per 1,000 employees) during the period 1980-1985 fell by more than 16 percent to 24.11. With this contribution to the successful overall balance sheet of our country, millions of workers with their experience, knowledge and skills, with their willingness to achieve, have announced their readiness to actively cooperate in the development of new products and processes. They have helped to solve tasks of comprehensive intensification in a socialist manner and in this way have utilized the advantages of our socialist society in the process of their own work.

The results of the work and the future tasks, however, also show that new requirements will be demanded of those branches and areas of science which are concerned primarily with human work and its organization. It is clear that new standards must be established regarding the interaction of socialist labor sciences with other social sciences, natural sciences and technological sciences. New working media, new products and technologies cannot be developed in circumvention of the working population. No matter what form a technology may take, the human being always is the deciding factor in its effectiveness. For this reason, the new technology must correspond to all those conditions which make human labor more productive, optimal in terms of how demanding the work is and as free as possible of obstacles and which develop the personality within the work process.

The realization of labor science findings by means of science and technology as well as a broad application of scientific labor organization will in the future be concentrated on such essential complexes as:

-the elaboration and application of labor science insights in the project planning and production-implementation of new products and key technologies and

-the rationalization of closed processes and the procedures through the development and application of a process-related organization of labor.

Application of Findings of Socialist Labor Sciences in Solution of Scientific-Technological Tasks

With the implementation of microelectronics, robotics and modern key technologies, fundamental transformations are taking place in the areas of work media, raw materials and manufacturing processes. These changes in the productive forces of our society are accompanied by new forms of the division of labor, cooperation and concentration of production. Further developed socialization of work made the organization and planning of the relatively closed reproduction process in combines necessary. In this way, responsibility increased from research and development to sales of the products. New bases came into being for the participation of the working population in management and planning in large economic units and in work collectives.

The task has been set for the period 1986-1990 of continuing to accelerate the development tempo of work productivity by means of comprehensive intensification. For this, human beings themselves as the major productive force with their experience and skills are creating the prerequisites for the continued gradual increase of their material and cultural standards of living, because they fully utilize all potentialities for the increase in performance in terms of the national economy by means of high productivity and effectiveness of labor. (3) Along these lines, 75,000 - 80,000 industrial robots must be produced and implemented; 85,000 - 90,000 CAD/CAM work stations must be made effective and 160,000 - 170,000 office and personal computers must be introduced. In this way, the work and production processes as well as the nation's fixed assets will be rationalized, modernized and refurbished and, in connection with scientific labor organization, manpower expenditures will be steadily reduced. In this process, changes in the work tasks of the working force and in working conditions will occur increasingly. These changes must be recognized in advance and work tasks must be created together with the working population which optimally utilize the qualification potential and help to develop the personality under optimal working conditions.

The solution of such tasks is being shifted with increasing automation to the areas of competence of designers, project managers and technological specialists--i.e. to the area of production preparation. Each task which must be fulfilled in the fields of science and technology must therefore be solved with regard to future demands on the work of human beings and together with these human beings. In the past five years, superlative achievements were accomplished in the preparation and implementation of robotics systems in the GDR. On the basis of modern technologies and of the mechanization and automation of entire processes, it was possible to reach a high level of labor

organization. Results are especially clear in work processes which require a high percentage of monotonous and manual as well as of physically heavy labor. Work science centers at the ministries and structural units for WAO in the combines have a significant share in the achieved results.

Future orientations for the implementation of robots direct themselves towards those processes in which a high implementation potential is present, tasks related to labor science must be solved and significant short-term and social effects must be thereby achieved. In this way, the automation of work and production processes can be accelerated and a high degree of effectiveness of working faculties can be achieved.

From the viewpoint of increased efficiency and work productivity, it is necessary to concentrate above all on the following typical processes:

- labor-intensive processes, which involve primarily manual, physically arduous work in tasks which violate health and safety standards;

- processes in which movements must be carried out manually, in short cycles and with a high degree of uniformity and precision;

- processes involving simple, undemanding work tasks, which have to be continually performed and which can be expected to result in negative psychological effects on human beings;

- processes in which activities must be carried out under technologically-caused conditions involving a high percentage and duration of unfavorable environmental conditions and even involving hazards. Here the use of robots can ensure the elimination of such negative factors.

The effective implementation of robots can be greatly enhanced by means of a consistent application of the methods of scientific labor organization. This concerns above all the elaboration of the implementation design, the creation of corresponding analytic bases through complex WAO analyses, the organization of the automated process as well as of the robot itself, work organization in preliminary and subsequent areas, the elaboration and introduction of process-related indicators of work performance, organization of the work tasks of the workers and performance-enhancing forms of remuneration.

The following example from an enterprise demonstrates the kind of effects that can be achieved by a consistent application of the methods and instrumentarium of WAO early on in the stage of project design of a manufacturing segment for the production of consumer goods.

- Manpower requirements were reduced by 30 percent compared with the original project.

- On the basis of multiple work stations, multiple machine complexes and continual change of work stations, 40 complex tasks were developed. This resulted in the elimination of 36 jobs.

-An improved utilization of work time was planned by improved division of functions between the workers and the working media in the interest of an enrichment in work content, reduction of manual activities and the curtailment of monotonous work processes.

-Because of the appropriate utilization of available know-how and newly created qualifications, workers can be assigned to a greater range of duties.

-With the implementation of ten industrial robots, solutions were created for automation down the line by means of machine-interfacing and substitution of manipulating operations.

-Conveyance distances were reduced by 40 percent as a result of improvements in the technological run-through and appropriate positioning of the machines and their interfaces.

Far-reaching process analyses which extended from technology, machine positioning, materials flow to the work station and the work tasks of the workers formed the basis for these results. Studies of comparable production, the generalization of best experiences and the elaboration of variants for mechanization and automation were particularly important.

A key factor in increasing the effectiveness and quality of work for the achievement of national economic objectives is the enhanced application of modern computer technology, "... in particular for computer-assisted project design, planning, production preparation and implementation (CAD/CAM), as well as for a profound rationalization and automation of production, information and service processes, including routine processes in management and administration..." (4) With the introduction of this new technology, there has been a fundamental change in work tasks and the organization of labor. This affects the entire process of the development of new products and modern technologies as well as the process formation in the execution of production, including planning, steering and control. Peak performances require the shortening of development and transfer times for new products and processes as well as a fast, flexible reaction to market conditions both at home and abroad. With such a complex array of tasks, the insights of labor science are being applied much more than previously to the areas of technical and technological development as well. The realization of insights of the socialist work sciences must consequently lead with the help of computer-assisted project planning of new technological and organizational solutions to a scientific organization of work in future work processes with optimal working conditions. In this way, it will be possible to reach the high productivity goals, to allow the social working faculties to become effective with the new technology and to realize the social goals of the development of the personality.

Including WAO and Labor Safety in Computer-Assisted Production Preparation and Implementation

Labor science insights concerning the scientific organization of work and labor safety must be made available for the computer-assisted use in the design, project planning and development of new technologies. This requires

the inclusion of information, regulations and standards in appropriate data bases and programs. The elaboration of independent programs and program components for selected tasks will be advantageous also, for example of computer software for the rationalization of manual work processes, for the evaluation of difficult demands, for the calculation of noise reduction measures, etc. The "Catalogue of Labor Science Guidelines" ("Katalog Arbeitswissenschaftlicher Richtlinien"=KAR) of the Central Research Institute for Labor is a basis for this. (Publication scheduled for the fourth quarter.--Ed.)

Forms of labor organization that are appropriate and compatible with modern computer technology must be designed and implemented for the computer-assisted work method in design, project planning and technological production preparation. At the same time, rational work operations must be developed which make possible a high degree of utilization of CAD/CAM technology. This is linked to the redesigning of work tasks for the personnel that deal with this technology. This is necessary in order to create exacting job specifications with an optimal degree of difficulty, which utilize the available qualification level and encourage additional training. Particularly important is the realization of labor science findings in the required stages of EDP project planning E1-E6.

The organization of material working conditions in the computer-assisted work methods is of greater importance, because the performance ability and performance willingness of the workers as well as a high degree of utilization of modern technology is thereby influenced. Furthermore, a user-friendly dialogue on the video screen is made possible by utilizing labor science requirements in user software. The user-friendliness of CAD/CAM solutions also greatly depends on the way in which WAO and work safety requirements are taken into consideration in hardware design. The organization of appropriate working times and work breaks throughout the entire work day also deserves some attention.

Preparation and Implementation of CAD/CAM Systems Requires the Inclusion of Qualification Measures for Scientific Labor Organization and Labor Safety in the Qualification Program for Modern Computer Technology

This affects primarily management cadre, technical personnel in the production preparation areas, as well as workers themselves in flexible automated manufacturing. In keeping with the respective task area, basic questions of WAO and of labor safety must be a required component of qualification training. Qualification measures are concentrated on ensuring that the need to apply labor science findings in technical design and project planning processes is understood and mastered, that a high level of organization of work in the operation of these systems is maintained and that the shaping of the working conditions encourages work performance with an optimal degree of difficulty. It is regarded as practical to integrate special labor science modules into the modular advanced training programs of the various educational institutions (universities and technical schools, industrial and combine academies, Chamber of Technology).

As experience from already realized projects shows, only through an organization in keeping with the new material-technical conditions of work can overall effectiveness be ensured. The entire complex from preliminary preparation to the transfer into production is moving ever more into the center of labor science collaboration. This entire complex must be mastered in all phases of project planning by engineers. The practice of involving labor science which is already underway in some projects has proven to be a very effective method. Flexible automated production systems have proven useful in the manufacture of small and medium-sized series with frequently changing project assortments. With less manpower and combined work tasks, significant productivity increases are achieved. New WAO solutions are taking on ever increasing importance in the area of work division and combination, the expansion of operating zones, the formation of the interaction of primary and auxiliary processes on up to the development and organization of the work collectives. New requirements are also emerging with regard to collaboration between technical and labor science cadres.

A competent department for the construction of means of rationalization is required in the enterprises and the combines for the accelerated development of CAD/CAM technology, for a shortening of the time required for the reproduction cycle, for the continued increase of effectiveness and work productivity by means of comprehensive intensification, for modernization and reconstruction as well as the renewal of national fixed assets. All results and achievements of the departments for the production of means of rationalization must also take into consideration the fact that each task to be solved in the areas of science and technology must correspond to future demands placed on the labor of human beings and must be met together with these human beings.

The introduction of state-of-the-art technology must come about with the improvement of working and living conditions at each individual work place. It is precisely this fact that is characteristic of socialist rationalization and for the dialectic of our continued advance in the direction of the dynamic development of the productive forces. (5)

This leads to the necessity to develop the body of knowledge in labor science in two directions:

1. Everything that labor science research has achieved regarding the construction and project planning of machines, facilities, processes and procedures must be utilized in the development, design and construction of means of rationalization. Here there still exists a broad field of available reserves. Of course, work must also be carried out in the development of "customized" methods for the departments for the means of rationalization in the combines and labor science institutes.

2. It is also necessary to utilize all available WAO instruments in order to make the work of the rationalization engineers themselves more effective. A source useful to workers, "WAO Tips for the Work Place: Examples and Solutions," has been published. (6) Especially important is the

introduction of specific qualification measures for workers who have been freed from other units of the enterprises and combines to work in the rationalization areas.

The WAO is Inseparably Linked to Social Working Faculties

"The new stage of the intensive expanded reproduction of the national economy requires that the quality and effectiveness of social work be rapidly developed by linking scientific-technological innovation processes to a broad application of scientific labor organization. This is inseparably linked to the effective implementation of social working faculties in the national economy." (7)

This task as outlined in the directive assumes that the transition to comprehensive intensification has been completed in the GDR. Now it is a question of directing the organization of labor at the entire reproduction process and of continuing to constantly refine its concrete forms in the enterprises as well as in all aspects of social life on the basis of the broad development of the productive forces and of the development of socialist production conditions. The task has been set in the five-year-plan period 1986-1990 of creating and restructuring 1.2 - 1.3 million jobs to achieve an annual savings of 500 - 600 million hours of working time by means of science and technology including scientific labor organization and of making this effective in terms of production and of eliminating work obstacles for a total of 400,000 - 450,000 workers. The process-related application and completion of scientific labor organization must thus contribute in the rationalization of closed production segments and manufacturing lines on the basis of modern technologies and new products to reductions in manpower expenditures and help to guarantee the effective utilization of the production funds. In this way, measures of socialist rationalization in the reproduction process of the combines and enterprises lead to a lowering in overall costs in terms of manpower and productive consumption and contribute to the plan-oriented development of effective manpower structures.

The initiative of the Schwedt VEB Petrochemical Combine has become a mass basis of intensification and rationalization in our country. In a nutshell, as a basic component of the economic strategy it contributes to increasing the productivity of the national economy and embodies the socialist type of rationalization. It includes the unity of the efforts of the collectives for greater efficiency and work productivity and the plan-oriented improvement of working and living conditions with the comprehensive application of WAO and of the rational utilization and further development of the working faculties.

For the coming time period, the task has been established of freeing manpower for the solution of national economic priority tasks by a savings in work places. This refers above all to manpower for

- the operationalizing of new or renovated production plant,
- further development of departments for the production of means of rationalization and

-expansion of multi-shift work and increasing the production of consumer goods.

Based on the experiences of the VEB PCK Schwedt, of the VEB Mansfeld Combine Wilhelm Pieck Eisleben and others for the freeing of manpower for other work tasks, it is especially a question of implementing WAO solutions in those processes in which a high proportion of manpower continues to be expended. In this way, the intensification of the reproduction process will be enhanced and in the long run, stable prerequisites will be created for a continuous production development. with regard to interrelationships with the previously described priority tasks, this particularly involves the plan-oriented

-rationalization of processes which are primarily manual in nature (modern manipulation technology, organization of complex work tasks and broad application of labor science findings make possible productivity increases of 20 percent and more);

-labor science organization of operating procedures for machines and installations (technology and production segments requiring little human intervention, further perfecting of multiple-machine operations, especially in the metal processing industry);

-labor science analysis and organization of auxiliary processes, in particular transportation and storage, as well as maintenance (development of standard technologies for the maintenance of machines and facilities, designs that take ease of maintenance into consideration);

-rationalization of administrative work by the organization of rational working procedures and information flows as well as the stepped-up application of manpower norms, including a reduction of formalizable and schematic work as a prerequisite for the implementation of modern office and computer technologies.

For the plan-oriented fulfillment of these tasks and for further steps in ongoing work, the following factors are necessary:

1. Tasks involving the process-related application of WAO should become an integral part of long-term strategic work, receive a permanent position in intensification, rationalization and manpower planning and be linked to the objectives of product development and modern technologies.

2. Tasks should be solved from the very beginning jointly with the workers on the basis of long-term management documents. A creative atmosphere in the WAO and rationalization collectives has proven to be particularly motivating. It is beneficial to concretely formulate accountable tasks in the plans for science and technology and in competition requirements;

3. The further refinement of the responsibility of leaders for their collectives, the organization of interdisciplinary work and the inclusion of rationalization work on up to the elaboration of new work tasks, process-related indicators and productivity enhancing forms of remuneration are indispensable.

4. The work science centers of the ministries (AWZ) and the corresponding structural units in the combines and enterprises have proven themselves as foci of the plan-oriented application of labor science findings regarding practice-related basic and advanced training and the exchange of experience. Now it is a question of formulating the necessary conclusions which can be drawn from the priority points of economic strategy which are named in the report of the secretary general of the SED, and to apply these to actual practice. In this process, the exchange of experience and performance comparisons are effective methods.

5. Rationalization work in the enterprises and in the industrial sectors aimed at increasing performance and the plan-oriented development of working and living conditions requires further refinement. This includes the agreed-upon conceptual work for the development and utilization of the working faculties and the merging of operational and sectoral WAO capacities as well as agreed-upon measures aimed at the improved utilization of the growing fund of fixed assets and the educational level of the workers.

Mastering these manifold and in part new tasks--which are described above in an initial overview--in the area of the organization of labor places high demands on the socialist labor sciences, together with the introduction of modern techniques and technologies. It also requires a high qualification level on the part of all affected workers, in particular of leading cadre. We must base our future work on this insight; in this way, it will be possible to make a greater contribution to the achievement of our economic strategy.

FOOTNOTES

1. Cf. Directive of the XIth Party Congress of the SED for the Five-Year Plan for the Development of the National Economy of the GDR in the Years 1986-1990, Dietz Verlag, Berlin 1986, p. 15.

2. Ibid., pp. 18, 27.

3. Ibid., p. 26.

4. Ibid., p. 32.

5. Cf. G. Mittag: "Mit qualitativ neuen Schritten zu hoechsten Leistungen." ["With qualitatively new steps to top performances"], Dietz Verlag, Berlin 1986, p. 53.

6. WAO-Hinweis fuer die Praxis: Beispiele und Loesungen. Ed. ZFA, Dresden 1986.

7. Directive, op. cit. p. 27.

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ECONOMY

POLAND

SOVIET-BUILT PASSENGER PLANE IN SERVICE

Warsaw ZYCIE WARSZAWY in Polish 27 Aug 86 p 1

[Article by (wko), "With 950 km/h Speed Over Europe--Modern and Economical--Heir to IL-18s: New TU-154M Under the LOT Colors"]

[Text] The Polish LOT Airlines are the fourth world airline (after Bulgaria, Syria, and China) to operate the airliner Tu-154M.

Tu-154M was bought this year by LOT for 9 million rubles. The price is not excessive, since in the West aircraft of similar class would cost some US\$40 million.

It has been operated by us since 27 June, and up till now opinions about it have been most flattering. Another plane of the same series has just landed at the Okęcie airport.

Let us look more closely at LOT's most recent buy.

It has been designed by the A. Tupolev Constructors at the Kuybyshev Aircraft Plants. The model for the 154 series first appeared in 1967, and 3 years later it was assigned to regular air traffic. The letter M indicates that the present construction is a new, modified version within the same family of planes.

It is a typical medium-range (3,500-6,000 km) airlines which flies over Europe and to the Middle East. Tu-154M is no doubt the most modern passenger plane, used regularly by our biggest air carrier. It is 48 meter's in length, its wingspan approaches 38 meters, its height 11.5 meters. Its total mass amounts to 100 tons. The fuel tanks in the wings carry 40 tons of fuel--half of that of Il-62M, up till now our biggest regular airliner.

Tu-154M takes on board 164 passengers; thus, its capacity is almost as big as that of the above mentioned Il. Armchairs, placed three in a row in two tiers, are separated by aisles. Approximately in mid-body there is a passenger's buffet, designed to LOT specifications. A new feature are the closed racks for passengers' carry-on luggage.

As we have been informed at LOT, the plane is now undergoing its so-called testing period; up till now it has spent some 300 hours in air, and just now is being submitted to regulations check-ups in a hangar.

The plane has 3 turbojet engines which reduce fuel consumption by 30 percent, and increase its thrust. It uses less than 5 tons of fuel per hour, instead of 8 tons for the Il-62M.

The new TUPOLEV has the most modernized mechanization of wings, compared to all other planes flown by LOT. The mechanization (a system of valves, slots, and fissures) has considerably improved the plane's performance in the takeoff and landing phases, and thus has made it safer.

Tu approaches its landing site with a speed of 230 km/h. Its cruising speed amounts to 950 km/h, which makes it at present the fastest LOT plane. It has qualified for day and night flying, by flight visibility or with help of navigational instruments, in icing conditions, during storms, pouring rains, hail or snow. In case of one engine's shut-off, there is no need for forced landing. The plane is steered by special hydraulic amplifiers--there are 3 independent steering systems. To put it simply, a pilot finds the steering job much easier, there is no need to exert physical force. The crew consists of 3 persons.

In the ongoing 5-year period Tu-154Ms will replace the virtually obsolescent turbopropelled Il-18s. It is assumed that 13 TUPOLEV crafts will be bought. By next year LOT will start to retire its first Il-18s.

The Polish Airlines thus have 2 Tu-154Ms, 7 Il-62Ms, 9 Tu-134As, as well as 16 AN-24s which serve domestic lines.

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CSO: 2600/698

ECONOMY

POLAND

FLAWS IN CEMA INDUSTRIAL COOPERATION MECHANISMS REVIEWED

Warsaw HANDEL ZAGRANICZNY in Polish No 2, Feb 86 pp 16-21, 26

[Article by Andrzej W. Wisniewski: "Industrial Cooperation in CEMA: Legal and Organizational Aspects"]

[Text] The Concept of Cooperation and Its Function in Turnover Between the CEMA Member Countries

International industrial cooperation is a relatively new economic phenomenon, still in its growth stage. Its development relies on using the experience gained earlier in contractual relations between economic units, such as refining, contracts for series of shipments of raw materials or semi-finished goods, license agreements, joint economic venture contracts (consortiums, joint ventures).

There are a number of different definitions of cooperation in the professional literature. (Footnote 1) (See J. Poczobut, A. W. Wisniewski, "Concerning the Legal Character of the Cooperative Contract." PROBLEMY PRAWNE HANDLU ZAGRANICZNEGO 1981, No 5, pp 48-52, and the literature cited there, and also J. Poczobut, "The Industrial Cooperative Contract with Capitalist Firms (Selected Legal Issues)," Warsaw 1982.) In addition to cooperation in industry, there is cooperation in agriculture, in sales, in services, in finance. In these areas of the economy, cooperation is either in its infant stage or, as in the case of banks, has unique characteristics. This study is concerned only with industrial cooperation understood as an organized form of collaboration between producers of industrial products (i.e., cooperation in production in the terminology used in CEMA documents).

Depending on the criterion adopted, a number of types of industrial cooperation can be distinguished. Based on geopolitical criteria there are the following types:

- a) West-West (between enterprises in the developed capitalist countries);
- b) East-West (between enterprises in the socialist countries and the developed capitalist countries);
- c) North-South (between enterprises in the developed capitalist countries and the developing countries);

d) East-West-South (cooperative undertakings, in which enterprises in the developed capitalist countries and the socialist countries collaborate in supplying investment shipments to the developing countries);

e) between enterprises of the CEMA countries and the developing countries;

f) between enterprises from the CEMA countries.

The above classification is neither precise, or exhaustive, but it includes the most typical cases of international industrial cooperation.

According to how the cooperation between the parties is organized, we have:

a) cooperation "horizontally" (called also horizontal or contractual) that relies on the signing of a contract under civil law committing them to economic cooperation for a lengthy period;

b) cooperation "vertically" (called vertical, capital, or organic), in which the parties join their resources and create a system of joint economic decisionmaking, creating in effect a new economic unit (for example, a joint venture).

As regards the number of participants, cooperation is either bilateral or multilateral.

This study includes legal questions of bilateral and multilateral industrial cooperation within the CEMA that fall within the conception of horizontal cooperation given above. Vertical cooperation falls within the range of questions that deal with the creation of joint economic organizations in CEMA countries. (Footnote 2) (On this subject see J. Jakubowski, "International Economic Organizations in CEMA Countries. Legal Issues." Warsaw 1980.)

The range of the meaning of the term "international industrial cooperation" can be defined more or less broadly, depending on the purpose, that the definition is to serve. In particular, for the needs of civil-law regulation of contractual relations between participants in cooperative ventures, a relatively narrow definition, which distinguishes cooperation from other types of contractual agreements, can be adopted. On the other hand, for administrative and organizational purposes, which intend to encourage enterprise initiative and regulate economic practices, a broader definition is more suitable. In some aspects, this latter regulatory treatment of secondary phenomena as equivalent to cooperation proper can be justified (for example, refining or other less formalized types of common economic endeavors).

In CEMA law there is as yet no officially accepted or even generally recognized definition either of cooperation as an economic phenomenon or of contractually regulated cooperation, although the term appeared long ago in CEMA documents. (Footnote 3) (Such a definition is currently being developed by a group of specialist drawn from the Council For Legal Issues of the Representatives of the CEMA Member Countries.

On the whole, cooperation includes the following types of economic activities:

- 1) "unilateral" cooperation or contractual cooperation (contract for the processing of raw materials--in Russian davalcheskaia kooperaciia [contributing cooperation]);
- 2) cooperation as a subsupplier;
- 3) cooperation on the basis of a license;
- 4) agreements on common production.

There are doubts, however, whether this is a precise classification (the second, the third, and the fourth items are not mutually exclusive) and whether it is useful for civil-law regulation (from this point of view inclusion of the first two positions is doubtful). The general formulation of the definition of cooperation, according to which it is a "purposeful, contractual, long-term, mutual union of economic organizations participating in production or in its technical and technological development," is more convincing. It is characterized by

- a) the functional joining of the production processes;
- b) control of production conditioned by the purpose of the cooperation;
- c) collaboration based on the agreed program of cooperation.

Work on the definition of cooperation in the Council For Legal Affairs has not been completed, thus the formulations are on provisional.

In Polish law, there is also no definition of cooperation. (Footnote 4) (See A. Koch. "Some Civil-Law Issues In the Context of the Activities in Poland of Foreign Enterprises and with Foreign Partners." PALESTRA 1985, No 11, pp 8-12.) This term is relatively new in the civil-law literature, which is divided as to legal character of a cooperative contract. In administrative law in 1971-81, decree no 170 of the Council of Ministers of 1970 concerning the development of industrial cooperation with foreign countries was binding. In accord with the directives appended to this decree industrial cooperation with foreign countries was to be understood as "relatively enduring collaboration of the domestic and foreign partners relying on mutual participation in a broadly conceived process of production, beginning with the development phase through to sales and technical service, conducted on principles established between these partners." This definition was not very precise and it could include cases of vertical cooperation (which domestic regulations should distinguish from cooperation in the precise meaning of the word and include in regulations on economic units--for instance, the law on mixed stock companies including foreign capital should cover such cases). Decree no 170 went out of force with the introduction of the legal acts regulating the economic reform and was subsequently abrogated. (Footnote 5) (Decree no 205 of the Council of Ministers of 27 September 1982 concerning the Abrogation of Certain Decrees..., MONITOR POLSKI no 24, item 209.) At present

there are no legal criteria for distinguishing and perhaps giving cooperative transactions privileged treatment. Among the state offices the Central Office of Statistics still treats cooperative transactions separately, using its own formal criteria.

There is no doubt that in the near future it will be necessary to regulate the administrative and organizational aspects of Polish economic organizations' participation in international industrial cooperation based on the most precise definition of cooperation possible. Among others, the Committee For Industrial Cooperation with Countries in the Second Payment Area of the Polish Chamber of Foreign Trade is working on such a definition. The Committee has proposed the following working definition:

"Industrial cooperation is a long-term activity of two or more economic units that relies on constant synchronization of the production processes and/or sales of goods and services and achieving the optimal arrangement from the point of view of the economic interests of the units participating in the undertaking."

This definition is then developed so as to include cases of common participation in negotiations and investments, which, in my opinion, should be regarded as typical organizational forms of large investment plans that take on the legal status of a civil stock company or consortium and which in principle are not connected with collaboration in production processes and should be excluded from the concept of cooperation (especially from industrial cooperation), and joint ventures (which is, as shown above, also inappropriate).

Taking this reservation into account and omitting other editorial shortcomings, which must be removed, this definition can be adopted as the working basis of the remainder of this article. (This definition largely agrees with the above mentioned definition being developed by the CEMA specialists. This applies only to the administrative and organizational aspects of the issue; any eventual civil-law regulation should be based on another definition (see below).

The concepts of specialization and cooperation first appeared in official CEMA documents in 1961. They were used in the "Basic Principles of the International Socialist Division of Labor," (Footnote 6) ("Basic Documents of the CEMA and Specialized Organizations. KiW, Warsaw, 1972.) developed at the 15th Session of the CEMA, but only as regards cooperation between states. Next, also in connection with cooperation between states, these questions were treated more broadly, emphasizing, among other things, the significance of legal regulation, in "Effective Methods for Improving Work in Specialization and Cooperation in Production, Especially in the Preparation, Signing, and Execution of Contracts to Specialize and Cooperate in Production," (Footnote 7) ("Basic CEMA Documents." Moscow 1983, pp 428-33.) adopted by the Executive Committee of the CEMA in 1967. Finally, this time also concerning relations between economic organizations, these concepts occupied a central place in the array of methods of integration established in the "Comprehensive Program for Further Deepening and Improving Cooperation and Developing Socialist Economic Integration among the CEMA Member Countries" in 1971. (Footnote 8) (See "Comprehensive Program.... KiW, Warsaw, 1971.)

Both in the Comprehensive Program and in the economic literature specialization and cooperation are to serve economic integration, lead to increasing productivity throughout the CEMA and within the individual national economies, aim to eliminate damaging parallelism and the absence of relations between the productive structures of the member countries and bilateralism in the structuring of international turnover. (Footnote 9) (See J. F. Kormnov. "Specialization and Cooperation in Production of CEMA Member Countries," Moscow 1972 (especially Chapter One) and J. Shyriaiev, "The International Socialist Division of Labor," PWE, Warsaw 1979, Chapter Two.) Thus, emphasis was placed primarily on structuring the principles of multilateral (between more than two member countries) specialization and cooperation.

Simultaneously, as the appropriate concepts have been defined and new problems arise, a new division of the subject on the level of interstate (intergovernmental) economic obligations has become evident. At this level specialization dominates. A new division on the level of relations between economic organizations, with civil-law status, has also become evident. In this case the key concept is cooperation, and the central problem is the creation of conditions for intensifying cooperative relations. (Footnote 10) (See Voros, Civil Law..., op.cit. pp 67-73.) On the basis of the Comprehensive Program work on research and the creation of these conditions has begun. One result of them was the introduction in 1979 of "General Conditions for Specialization and Cooperation in Production between Organizations of the CEMA Member Countries," which is a uniform civil-law regulation for contracts concerning specialization and cooperation. (Footnote 11) (See the attachment to decrees no 161 of the Council of Ministers of 5 October 1979 MONITOR POLSKI no 28, item 143 and the publication by the Polish Chamber of Foreign Trade (with a commentary by B. Federowicz and the Russian language version) Warsaw 1981.)

Progress so far in both the range of economic goals of integration and the legal and organizational conditions for implementing cooperative relations cannot be regarded as completely satisfactory. Implementation of the ambitious plan to create a new economic environment, called "integration," requires more work within the CEMA on methods and form of mutual adjustment of turnover volumes and undertakings and application in the individual countries of methods, which will facilitate the implementation of cooperative undertakings and increase the interest of enterprises in participating in them.

Cooperation with CEMA partners could fulfill an important function for Poland's economic interests. Admittedly, this question does not belong to the subject of this article on legal regulations, but it is essential to outline the basic assumptions that constitute the starting point for further considerations.

First, Poland is interested in strengthening its economic ties with the CEMA countries as a counterbalance to its relations with the production and technology of the developed capitalist countries that dominated during the precrisis period and broke down partially as a result of our crisis and partially as a result of economic sanctions.

Second, industrial cooperation constitutes one form of economic integration of the CEMA countries; the goal of integration is intensification of the economic development of the member countries.

Third, especially in the area of overcoming the crisis cooperation creates an additional opportunity for more efficient use of the existing production facilities and more rapid liquidation of the limiting factors.

Fourth, one of the goals of the economic reform is to change the position of foreign trade in the Polish economy and to move to export directed economic development. This requires further improvement in productivity and should also make this improvement possible. From this point of view, cooperative relations with foreign countries constitute one of the most important elements in the economic strategy. This should not oppose cooperation within the CEMA to that with partners from the developed capitalist countries (or third world countries), for both the first and second rely to a significant degree on similar premises and conditions of development and constitute an element in the same economic strategy, which aims to maximize the intensification of Polish participation in the international division of labor.

The Legal and Organizational Framework for Cooperation in Poland

In 1971-81 the foundation for organizing collaboration between the ministries and Polish enterprises in cooperative transactions was the above mentioned decree no 170 of the Council of Ministers on 1971 concerning the development of industrial cooperation with foreign countries. The decree outlined a definite organizational scheme for cooperation, which consisted of the following elements:

a) it established that cooperative relations were to be created, practically speaking, in the interest and on the initiative of individual production enterprises;

b) it authorized the production enterprises to participate directly in negotiations with their foreign partners, gave the enterprises the right to decide whether to conclude a cooperative contract and to sign the contract along with a foreign trade enterprise;

c) it obligated the foreign trade enterprise to service the technical trade aspects of the cooperative undertaking;

d) it established a system for the higher levels of the enterprise to make decisions concerning, among other things, the collaboration of several Polish units or to assign additional resources to the implementation of the cooperative undertaking.

The system introduced by decree no 170 had to be revoked because it contradicted some elements in the economic reform. It has not been replaced by any comprehensive law. The civil-law elements, which decree no 170 regulated only marginally and with insufficient precision, have remained without any detailed regulation. However, the administrative and organizational framework

for cooperative transactions are presently defined by the following articles of law.

1. The law of 26 February 1982 concerning the right to conduct foreign trade (DZIENNIK USTAW no 7, item 59; hereinafter referred to as the "law on concessions").

Above all we must note that economic activity in the form of cooperation with a foreign partner is included in the meaning of the term "conduct of activity in the area of foreign trade. In light of the law the following are authorized to enter cooperative contracts:

- a) import-export enterprises, created by the minister of foreign trade;
- b) other economic units on the condition they have received a concession.

An economic unit that meets the following criteria can apply for a concession:

- 1) it exports at least 25 percent of its own production or services or,
- 2) the value of its exports exceeds 1 billion zloty (with the proper conversion given the change of the exchange rate for the zloty that were made after the law was passed) or,
- 3) it maintains cooperative relations with a foreign partner or refines materials on contract for him. (In this case previous two criteria do not have to be met; however, the case must be justified.)

Moreover, in the meaning of art 8, par 2 of the law, it is not impossible for a production enterprise to apply for a concession to independently conclude and carry out a particular cooperative transaction.

The law on concessions also contains significant limitations. Art 8, par 2 requires an enterprise applying for a concession to ensure "proper personnel, organizational, and technical service" for exports and imports.

This requirement obviously cannot be met by a significant number of production enterprises that might be attractive partners for foreign economic organizations. The fairly restrictive policy of the minister of foreign trade in giving concessions, especially for turnover with countries in the first payment area, must also be mentioned. In effect, excluding existing concessions for large industrial enterprises, a producer has no opportunity to apply directly for a cooperative transactions and must be represented by a foreign trade enterprise, reserving for himself the exclusive right to make the final, binding decision.

It is unclear whether the production enterprise itself can initiate a cooperative transaction and begin negotiations with a foreign partner, which the revoked decree no 170 of the Council of Ministers of 1971 expressly permitted him to do (prior to this decree it was in principle inadmissible). At present there are new legal bases on which this essential question should

be decided. The law on concession establishes in art 2 that "foreign trade includes turnover of goods and services with foreign countries." Certainly, one can adopt an interpretation that would permit preparatory activities (beginning negotiations and determining the contents of a future, conditional transaction by the unit) without a concession, with the intention of applying for a concession on the basis of the results of the negotiations. A different interpretation would deprive the language of art 8 par 2 of any sense. It permits a unit to apply for a concession to conclude a particular contract (not "particular types"--which indicates contracts identified by the definition of the other party and the contents, existing at least in the form of a proposal or plan).

Even such an interpretation does not satisfy the need of a producer interested in undertaking cooperation. Negotiations in a cooperative transaction frequently require undertaking initial, provisional obligations, whose violation can create a claim by the other party. In these circumstances, an enterprise without a concession will not be a trustworthy partner for a foreign participant in cooperation, who will also fear the possibility (though minimal) that making claims during negotiations will be regarded as a violation of the language of the law on concessions. Practically then, such an enterprise is consigned starting with initial contacts to the mediation of a foreign trade enterprise, which certainly can protect Polish interests in the transaction (though this is not necessary, given, for instance, the practical necessity of presenting the transaction to the Ministry of Foreign Trade for confirmation, of which more below). But this retards the liberation of economic initiative in those sources in which it most frequently arises. Thus, it is a significant step backwards in comparison with the regulation in decree no 170.

2. Law of 22 November 1983--convertible currency law (DZIENNIK USTAW no 63, item 288).

This law confirms the conclusions drawn from the above question concerning the permissibility of an enterprise undertaking negotiations toward a cooperative contract with foreign partners; for in the language of art 19 par 2 of this law, the conclusion of such contracts if they do not directly require shipments of goods or payments is allowed with a permit from the minister of foreign trade or other proper office, issued with the consent of the minister of finance. Since a permit can be issued only for a particular transaction, its negotiation is also in light of the convertible currency law permitted. On the other hand, this does invalidate, in any respect, the above reservation concerning the practical significance of this permit for liberating cooperative initiatives.

3. The System for Controlling Turnover in Goods and Payments

This system consists of:

a) permits to export and import in commercial turnover with foreign countries, included in the customs law, introduced by an order of the minister of foreign trade of 31 December 1984 (DZIENNIK URZEDOWY MHZ 1985, no 1, item 1);

b) convertible currency permits for foreign trade and services connected with this trade, instituted on the basis of the convertible currency law: a general permit--order no 6 of the minister of foreign trade from 1985 (DZIENNIK URZEDOWY MHZ 1985, no 4, item 7) and an individual permit--order no 10 of the minister of finance of 1985 (DZIENNIK URZEDOWY MHZ 1985, no 4, item 8).

The current system in force for controlling turnover in foreign trade does not provide for special, separate treatment for cooperative transactions. But the conceptual structure of these regulations does not anticipate the peculiarities of cooperation, which at times can create doubts as to whether cooperative transactions are covered by these regulations. In any case, some limitations of the method for concluding and implementing cooperative transactions derive from these regulations. In particular, if the transaction necessitates the export of goods above the quantities in the plan or the export and import above the quantities or the values defined by interstate or intergovernment agreements and contracts (which will usually apply to new cooperative initiatives within the CEMA), or if the cooperative contract anticipates the complete or partial mutual compensation of shipments (which frequently determines the economic effects of cooperation for Poland), or, finally, if the cooperative contract anticipates the import or export of technology (which is nearly always the case), then the contract must be concluded under an individual import/export permit. Thus, in practice every cooperative transaction requires an individual permit, upon which the issuance of a convertible currency permit is also contingent.

4. Regulations affecting access to specified raw materials and products.

This section concerns the regulations for distribution and mandatory intermediaries. The hindrances this creates do not require detailed discussion as regards cooperative transactions.

The Legal and Organizational Framework for Cooperation in CEMA Law

The CEMA has adopted the following documents regulating questions connected with the planning, conclusion, and implementation of cooperative contracts:

- 1) "Basic Principles of the Socialist International Division of Labor" (15th Session, 1961; adopted by the Council of Representatives of Communist and Workers Parties, 1962);
- 2) "Effective Methods for Improving Work in Specialization and Cooperation in Production, Particularly the Preparation, Conclusion, and Execution of Contracts to Specialize and Produce in Cooperation" (Executive Committee, 1967);
- 3) "Comprehensive Program for Further Deepening and Improvement of Cooperation and the Development of Socialist Economic Integration" (25th Session, 1971);

- 4) "Report on Legal Problems Connected with the Conclusion of Contracts to Specialize and Produce in Cooperation" (Executive Committee, 1973);
- 5) "Principal Directions for Further Improvement of the Organization of Multilateral Cooperation" (32d Session, 1978);
- 6) "General Conditions for Specialization and Production in Cooperation Between Organizations of the CEMA Member Countries" (subsequently referred to as General Conditions, Executive Committee, 1979);
- 7) "The Method for Including in International Long-Term Trade Contracts and Annual Protocols on Exchanges of Goods the Obligations of the Parties Concerning Mutual Shipments of Goods, Resulting from Economic Agreements, Contracts to Specialize and Cooperate, Contracts included in Agreed Plans for Multilateral Integration Undertakings" (The Permanent Commission for Foreign Trade, 1975, revised 1978);
- 8) "Typical Articles [of a Contract] on Prices" (Recommended for use in contracts to specialize and cooperate. Permanent Commission of Foreign Trade, 1980).

CEMA economic law, like Polish domestic law, divides regulations of issues connected with cooperation into two groups: civil law and administrative and organizational law (in this case constituting a sphere of interest for international public law). This point includes only a very general characterization of this second group.

In general, the initiation of a cooperative undertaking can result from:

- a) a recommendation to which is attached the text of a multilateral contract for signature by an economic organization and which has been adopted by a Session of the Council or the Executive Committee;
- b) a recommendation to sign an international contract concerning a cooperative agreement (the completion of the obligations of this contract usually leads to the signing of a civil-law contract);
- c) a decision of the CEMA industrial sector commission.

In each case implementation of the undertaking requires: adding it to the bilateral protocols on coordinating the 5-year plans of the states concerned; adding the respective turnovers to the long-term trade contracts and to the annual protocols on the exchange of goods.

Further, the largest cooperative undertakings are usually included in "The Agreed Plan for Multilateral Integration Undertakings."

The principal barriers to implementing cooperative initiatives, in this situation, arise because of:

- a) differences in domestic regulations on how the state exercises its monopoly of foreign trade, which unequally shapes the economic units' interest

and ability to undertake cooperative initiatives (NB: a special group of specialists within the Council for Legal Affairs recently began comparative studies of the respective regulations of the member states); (Footnote 12) (From this point of view, the authority of Polish industrial enterprises, established in the previous item, to initiate cooperative undertakings with foreign partners is insufficient, if they are not on the list of organizations authorized to make direct contacts in turnover between CEMA countries. See the "Guide to the Implementation of the Exchange of Information Concerning Which Offices and Organizations of the CEMA Member States Can Legally Conclude Direct Relations on the Basis of Contractual Relations," in "Basic CEMA Documents," vol. 2, Moscow 1983, pp 452-553, and W. Knupfer, "Aspects of the Improvement of the Legal Foundations of Socialist Economic Integration under the Conditions of Intensification," STAAT UND RECHT 1985, no 8, pp 669.)

b) the conflict between efforts to create multilateral cooperative relations and the slow progress toward multilateralization of the basic methods for agreeing on the level of mutual economic turnovers (conforming plans, trade contracts, and annual protocols),

c) the required balancing of turnovers that forces the alteration of the respective bilateral agreements in conjunction with the new cooperative initiatives.

In any case, however, in the intensification of cooperation with partners from other CEMA countries, the system for promoting the economic initiative of Polish enterprises, which functions within our economy and the legal institutions that direct it, is decisive from our point of view.

Contractual Relations in Cooperative Undertakings

As yet no legal system in the world contains a description of the character of a cooperative contract. In practice, it should be treated as a separate type of contractual obligation. In view of this, the legal character of this contract has, unfortunately, only been the subject of scholarly inquiries, and the scholars do not agree how it should be treated. Some treat it as a mixed contract; others, as an unnamed type; and other primarily emphasize its elements of preliminary contracts or standing contracts. (Footnote 13) (See J. Poczobut, A. W. Wisniewski, "Concerning the Legal Character...", "op. cit.," pp 48-51 and 60-62.)

Civil-law regulations require the development of a fairly precise definition of cooperative contract, which differs significantly from the one given at the beginning of this article. Also, such a definition should include the basic core of the new economic phenomena, usually covered by industrial cooperation contracts. The General Conditions does not contain such a definition, which confronted us with the unusual situation of a large block of legal regulations, many of which are absolutely binding, that apply to contracts, whose range the parties can only understand intuitively and, therefore, substantially arbitrarily. (Footnote 14) (See A. W. Wisniewski, "Problems of Responsibility in the Area of International Industrial Cooperation," in "Legal Problems of International Industrial Cooperation," Warsaw

1981, p 126ff. For another view of this issue see B. Fedorowicz's commentary in the General Conditions, "op. cit.")

So far, the only attempt to standardize the cooperative contract and define its main conceptual elements (*essentialia negotii*) has been undertaken in the proposed law on civil-law relations in international trade, developed in 1981 by a commission of specialists named by the minister of foreign trade and maritime economy (the proposal was given to the Legislative Council and at present work is supposed to begin on it again). According to art 1 of this proposal: "By a cooperative contract, the parties obligate themselves to long-term collaboration that aims to exchange economically interconnected services, in particular:

- 1) they obligate themselves to gather and exchange particular information:
- 2) they obligate themselves to implement defined changes in their economic activities;
- 3) they define the principles of collaboration."

Such a definition, unlike those given above, would be useful for civil-law regulations concerning cooperative relations in general.

As has been pointed out, for the General Conditions to be effective, they require additions to the definition of cooperative contract. With this reservation and given further improvement to them (especially the system of sanctions), they ensure an appropriate legal framework for multilateral cooperative contracts. The situation of partners in bilateral agreements is somewhat worse; however, even in these cases appropriately applying the General Conditions through the medium of a contract between the parties will suffice.

We should add, that a group of specialists of the Council for Legal Affairs is working on further documents to facilitate parties taking up cooperative undertakings (a so-called practical guide to drawing up contracts to cooperate in production with examples of several different types of cooperative contracts).

Also in the area of contractual relations between Polish units (as distinguished from those discussed above, concerning domestic relations, which are practically speaking part of the law of socialized turnover), the present legal regulations are unsatisfactory. Measures assuring the completion of cooperative transactions by single Polish units (concession) are naturally of limited application and do not include numerous, independent initiatives by small and medium-sized production enterprises, which are so desirable. At present, usually a foreign trade enterprise concludes a cooperative transaction by signing a cooperative contract and assures the participation of the appropriate production enterprises or enterprise, or, for example, a scientific research institute (which does not enter into direct legal relations with the foreign partner but only does so in functional and organizational relations as authorized by the foreign trade enterprise). Assuming that

the foreign trade enterprise's financial accounting is independent, the decision locus shifts to the sphere of turnover, which is inappropriate for the character of the undertaking, which depends on close working contacts and mutual trust at the level of production.

The situation would be somewhat better assuming that the foreign trade enterprise implements transactions in its own name but that the financial accounting remains with the other participants and that the foreign trade enterprise serves only as an intermediary and not as "dominus negotii." This would be a legal institution that belongs to the conceptual realm of contracts, approximating commission sales (although due to the limitations on commission contracts in the civil codex, this form does not include this concept). But if the cooperation involved several producers, the necessary coordination of the actions could be achieved only by concluding a special consortium contract among the Polish participants, which would assure a formalized method for making decision by representatives of all the participants. In practice, however, I have not encountered this method even in the most important cooperative transactions. Usually the foreign trade enterprise that manages the Polish side maintains independent contractual relations with each individual producer (sometimes only marked by the initialing of a cooperative contract), which impedes the execution of a unified policy toward the foreign partner, not to mention the confusion it produces among the Polish participants.

Conclusions

One of the basic conclusions of the above review of the basic legal and organizational issues of cooperation within the CEMA is that the intensification of this form of cooperative relations, which so far has received the greatest attention within the CEMA as part of the economic integration program (i.e., multilateral cooperation between large enterprises implementing important undertakings, encouraged by the direct participation of the governments of the member countries and the working groups of the Council), will not proceed as rapidly as expected without proper support by developing simpler forms of collaboration at the level of the economic organization, usually bilateral. Efforts begun by a working group of the Council for Legal Affairs, which deals with the analysis of the competence of the economic organizations to initiate direct relations with partners with the CEMA are that an attempt to create a better legal basis for such collaboration is being made. I think, however, that this endeavor could be enriched by further initiatives.

On the domestic forum, however, we should consider introducing evaluations of cooperative initiatives that ensure sufficient system capability, so that we can notify appropriate partners and CEMA working groups, and thus ensure their rapid inclusion in the proper international agreements.

A radical solution of the indicated problems that appear in domestic legal regulations can be achieved only by another comprehensive regulation of the issues of industrial cooperation. This time, however, at the level of a law. This law should include both administrative issues (the competence of the central offices, the methods for coordinating actions), as well as civil-law

issues (principles of cooperation between Polish partners in the transaction). Given the fundamental similarity of the organization problems, it should also consider the existing peculiarities of cooperation within the CEMA and with countries from the second payments area.

Besides the problem of creating the appropriate system tools, which determine how profitable cooperation is for a production enterprise and which the law should enumerate, the law should also consider the appropriate manner of organization. In my opinion, in order to ensure the necessary information resources and to make possible exhaustive analysis of proposed undertakings, it would be appropriate to:

- 1) create, in Poland, a research center and collect information on opportunities and qualifications for cooperation (such a proposal has already been made by the Committee for Industrial Cooperation with the Second Payments Area of the Polish Chamber of Foreign Trade): the proper institution to supervise the center would be the Polish Chamber of Foreign Trade;

- 2) name, by agreement between the interested research units, production enterprises, and foreign trade enterprises (or temporarily also by a decision of the founding bodies or associations), when initiating any particular undertaking, an appropriate committee of specialist, who would be able, with the aid of the above mentioned research center, to comprehensively analyze the transaction as regards organization, technology, commerce, and finance. Such a committee would usually constitute the intellectual substratum of the future consortium, mentioned above, which would be created by the conclusion of the actual cooperative contract.

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[The Law of 23 April 1986 on Foreign-Participation Companies]

[Text] Chapter 1

General Regulations

Article 1. This law regulates the conditions for forming and the regulations for operating foreign-participation companies on the territory of the Polish People's Republic.

Article 2. 1. In the meaning of this law, foreign-participation companies, henceforth called 'companies,' are companies with limited liability as well as stock companies of Polish legal entities with foreign affiliates.

2. Companies can be formed to conduct economic activity based on producing goods and providing services as well as their sale in Poland and abroad.

3. The regulations of the Commercial Code apply to companies unless stated otherwise in the regulations of this law.

Article 3. 1. Polish legal entities authorized to participate in companies are:

- 1) state enterprises;
- 2) co-operatives and their associations;
- 3) scientific institutes, and research and development units if they are incorporated;
- 4) commercial companies in which the entities designated in points 1 -3 or the National Treasury contributed over 50 percent of the initial capital.

2. Foreign affiliates authorized to participate in companies are:

- 1) legal entities having headquarters abroad;
- 2) natural persons possessing foreign or Polish citizenship whose permanent residences are abroad;
- 3) unincorporated associations of persons designated in points 1 and 2.

Article 4. Persons forming a company can freely establish their mutual relationships and the internal relationships of the company in a contract or other instruments of formation, unless stated otherwise in the regulations of the Commercial Code or this law.

Article 5. 1. A permit is required to form a new company; a permit is also required for a company to transfer interests or shares among shareholders or when a new person joins the company.

2. The permit is issued, upon application of the interested Polish legal entities, by the minister of foreign trade with the concurrence of the minister of finance as well as other organs authorized in the separate regulations.

3. A permit to form a company is issued especially if the economic activity of the company assures:

- 1) the implementation of modern technological and organizational methods into the national economy;
- 2) the production of goods and the generation of services for export;
- 3) improved flow of new and high-quality consumer goods and services into the domestic marketplace.

Article 6. 1. The minister of foreign trade can refuse to issue a permit, especially if the economic activity to be conducted is undesirable with respect to:

- 1) vital social interests or the national economy;
- 2) the security of the state or the protection of state secrets.

2. A refusal to issue a permit cannot be appealed to an administrative court.

Article 7. 1. A permit may not be issued to form a company to conduct economic activity in the defense industry, rail and air transportation, communications, telecommunications, insurance and publishing, except typography and foreign trade brokerage.

2. In specifically justified cases, the minister of foreign trade can issue a permit to form a company to operate in the areas designated in paragraph 1 but only if the appropriate minister concurs.

Article 8. 1. The capital contributed to a company by its Polish shareholders cannot be less than 51 percent of the company's capital.

2. In economically justified cases, the minister of foreign trade, with the concurrence of the appropriate minister, can agree to waive the paragraph 1 regulation, providing it does not harm state security.

Chapter 2

Forming a Company

Article 9. 1. The application for a permit to form a company should designate the:

- 1) purpose of the company;
- 2) subject and scope of the company's economic activity, especially in the area of export and import;
- 3) projected period of time the company will be active;
- 4) projected number of employees;
- 5) resources required to initiate company activity, including the amount of contributed capital;
- 6) location of the company's headquarters and its commercial facilities;
- 7) percentages of company capital contributed by the Polish and foreign shareholders and the forms of contributions;
- 8) extent of proposed authorization to conduct foreign trade if the company intends to seek such authorization.

2. The paragraph 1 application should also include:

- 1) drafts of the company's contract or other instruments of formation required by the regulations of the Commercial Code;
- 2) documents presenting the legal and financial status of the future shareholders;
- 3) the approval of the parent agency or the opinion of the authorized central contract-operative association or the organ supervising the Polish legal entity, if such an organ exists.

3. The documents designated in paragraph 2 are in Polish or in a foreign language along with a certified translation in Polish.

4. A decision regarding a permit to form a company must be issued within 3 months after the permit application is submitted.

Article 10. 1. The permit to form a company designates the:

- 1) shareholders, company name and location of headquarters, locations of its commercial facilities, and the subject and scope of the company's activities;
- 2) percentages of company capital contributed by the Polish and foreign shareholders, and the forms of contributions;
- 3) conditions under which the company is authorized to conduct foreign trade after it is formed, if an application was submitted per article 9, paragraph 1, point 8;
- 4) amount of foreign currency designated in article 21, paragraph 2 to be sold;
- 5) other conditions the company is obligated to fulfill in the course of its activities;
- 6) permit time-limit.

2. A change in the company contract or other instruments of formation requires a separate permit from the minister of foreign trade that is issued with the concurrence of the minister of finance.

3. The issuance of the permit designated in paragraph 1 signifies approval to undertake the activity specified in the permit, subject to the restriction designated in the article 11 regulation.

Article 11. If undertaking the economic activity designated in the permit requires another permit based on other regulations, the company is required to obtain such a permit before initiating activity.

Article 12. 1. A company must register with a court of registration in accordance with the regulations on commercial registration.

2. The registration application should include the permit to form the company.

Article 13. A company's directorate must notify the minister of foreign trade of the company's registration, including the court where the company was registered, within 2 weeks of its registration date.

Article 14. 1. If a company acts contrary to the law or the conditions specified in its permit for formation, then the organ that issued the permit demands these contrary acts cease within a specified time, and if these demands are not met within the specified time the company's permit is revoked and legal action is initiated to dissolve the company so that its further existence would serve no purpose.

2. The dissolution of a company is decided by court judgement.

Article 15. 1. Contributions to a company's capital can be made in monetary or nonmonetary form.

2. Contributions of foreign persons can be:

1) in monetary form - in foreign currency or zlotys obtained from a documented exchange of this foreign currency;

2) in nonmonetary form - providing it is obtained from abroad or bought for zlotys obtained from a documented exchange of foreign currency.

3. Nonmonetary contributions of Polish shareholders can consist of fixed assets at their disposal as well as other things, including rights. With the approval of the authorized local governmental agency, real estate belonging to the state can be contributed to the company based on right of enjoyment.

4. The value and types of nonmonetary contributions should be designated in the company's contract or other instruments of formation and, if required by the organ issuing the permit, verifications by independent experts of the value of these nonmonetary contributions also must be submitted; the expense of expert verification is borne by the person making the nonmonetary contribution.

5. Contributions to a company's capital can be given only via registered documents.

Chapter 3

Company Management

Article 16. The composition and authority of a company's management and the procedure for selecting management are designated by the shareholders in the contract or other instruments of formation subject to the regulation of article 4.

Article 17. The company manager or, for a multiperson management, the company chairman must be a Polish citizen whose permanent residence is Poland.

Article 18. 1. A company must form a supervisory council.

2. One member of the supervisory council is elected by a simple majority by the company's workers at worker meetings. The person elected may be a worker in the company.

Chapter 4

Managing a Company

Article 19. 1. To determine profit, a company's fixed assets depreciations and nonmaterial values included in the sums based on depreciation rates and the rules established for state enterprises are considered as operating costs.

2. Depreciation sums remain in the company.

3. Company profit less income taxes due represents profit for distribution.

4. Ten percent of profit for distribution is set aside as a reserve for balance sheet losses. A company may limit reserve fund contributions to 4 percent of its tax year operating costs.

5. Profits due to shareholders are distributed in proportion to their contributions to company capital. Any other agreements require the consent of the minister of finance.

Article 20. 1. The minister of finance establishes the general accounting rules for a company.

2. The authorized organ of the minister of finance verifies a company's annual balance sheet within 3 months of its formation. The minister of finance also may authorize other organs to verify the annual balance sheets of designated companies.

3. The regulations regarding verification of annual balance sheets for state enterprises and other organizational units are used, as appropriate, to verify the annual balance sheets of a company; in addition, a company's annual report is subject to full review before an official ascertainment is made of its verification.

4. The verified company profit that is indicated in the company's annual report and that is determined in accordance with the accounting rules that are mandatory for the company represents the basis for determining that portion of the profit that a foreign shareholder may remit abroad based on this law's shareholder regulations.

Article 21. 1. A company sells 15 to 25 percent of its foreign currency receipts obtained from exports to a Polish foreign exchange bank.

2. The minister of foreign trade, with the concurrence of the minister of finance, designates in the permit (article 5) the percentage of foreign currency receipts discussed in paragraph 1 to be sold by each individual company formed. In economically justified cases, the percentage of foreign currency receipts to be sold may be less than 15 percent.

3. After the sale discussed in paragraphs 1 and 2, the remaining foreign currency receipts remain with the company.

Article 22. 1. A company pays out in foreign currency to shareholders profits earned in the previous accounting year from the surplus of export receipts over import expenditures after deducting the sale designated in article 21, paragraphs 1 and 2. The amount of profit paid out in foreign currency is proportional to a shareholder's share of the company's profit.

2. A foreign shareholder has the right to remit abroad the amount designated in paragraph 1 without a separate foreign exchange permit.

3. Of the foreign currency amounts discussed in paragraph 1, a Polish shareholder may keep without a separate foreign exchange permit:

- 1) up to the amount designated in the foreign exchange allowance if he exports on his own;
- 2) in all other cases, up to the amount designated by the minister of finance that is in accord with the regulations on foreign exchange allowances.

The Polish shareholder must sell the remaining portion of his sum to a Polish foreign exchange bank.

4. A company pays out profits discussed in paragraph 1 in the same currency in which receipts are received.

Article 23. 1. Foreign shareholders have the right to reinvest in the company their share of company profits to increase the company's contributed capital, subject to the regulations of articles 5 and 8.

2. Foreign shareholders have the right to remit abroad funds obtained in foreign currency from the sale of interests or stock in the company, as well as that portion of company funds due them if the company is liquidated.

Article 24. 1. Company cash funds are deposited in its accounts in a Polish foreign exchange bank.

2. On the instructions of the company, the banks mentioned in paragraph 1 open and conduct the company account in Polish currency and may provide credit to the company in foreign currency under the same rules that are mandatory for state enterprises and based on the agreement concluded between the company and the bank.

3. A company may keep accounts in foreign banks after obtaining a foreign currency permit and the concurrence of the bank or banks in which it has accounts.

4. The company also may negotiate foreign credits after obtaining a foreign currency permit and the concurrence of the bank or banks in which it has accounts. The company also may negotiate credit on the basis of the regulations mandatory for state enterprises.

5. The banks mentioned in paragraph 1 can issue guarantees for a company's liabilities in accordance with mandatory regulations.

6. The Polish National Bank may guarantee a foreign affiliate the repayment of the value of its contribution held in account up to the date the company is registered in the event a loss is incurred as a result of a decision by state organs concerning company assets.

Article 25. In specifically justified cases, a company may obtain a foreign exchange permit to purchase goods in the domestic market for convertible currencies.

Article 26. 1. A company conducts economic activity on the basis of and in accordance with the procedures designated for units of the socialized economy.

2. When justified, the minister of foreign trade, with the concurrence of appropriate ministers, can designate on the permit to form a company different rules and procedures for procuring producer materials and equipment and distributing goods and services produced by the company.

Article 27. State enterprises may sell fixed assets to a company and establish a company's limited real rights to these assets.

Article 28. State land may be consigned on lease or perpetually to a company for the duration of its activity based on the regulations designated in regulations on management of state lands.

Chapter 5

Taxes and Fees

Article 29. A company pays taxes and fees and benefits from rebates and exemptions in accordance with the regulations for assessing units of the socialized economy, except as noted differently in this law.

Article 30. 1. The assessment of income taxes on a company will be based on the company's verified profits earned during the tax year plus any costs and losses that were determined to be unjustified.

2. A company's income tax will be 50 percent of the tax year assessment base. The company may lower the tax rate by 0.40 percent for each 1 percent value of export relative to the value of sold production or service.

3. The company pays no income tax during the first 2 years of production or service activity.

4. A company does not pay income tax on that portion of its profit designated for investment.

Article 31. The following are exempt from import duty:

1) nonmonetary assets contributed by a foreign shareholder to a company's capital in the form of machinery, equipment, furnishings or transportation assets that are used to conduct the economic activity designated in the company's permit and that are designated in the contract or other instruments of formation.

2) machinery, equipment, furnishings or transportation assets for use in the company business as designated in the company's permit that are obtained within 3 years after the company is formed.

2. Import duties paid by a company are returned to it when it exports on the basis of regulations established for state enterprises.

3. In economically justified cases, the minister of foreign trade can grant additional rebates and exemptions regarding duty liabilities.

Chapter 6

Employment

Article 32. 1. Employment and labor relations in a company are subject to Polish law.

2. Polish laws are applicable in the realm of worker social security and welfare and in the realm of trade union activities.

3. The company may employ individuals possessing foreign citizenship if justified by their special qualifications and if approved by the local governmental agency having authority at the voivodship level.

Article 33. 1. The compensation systems for company workers are designated in the contract or other company instruments of formation or in management regulations.

2. Compensation for company workers is established and paid in zloty.

3. The workers mentioned in article 32, paragraph 3 may receive up to 50 percent of their pay in foreign currency from the company's foreign exchange funds (article 21, paragraph 3). At the request of the worker, this amount of compensation may be remitted abroad by the company without a separate foreign exchange permit.

Chapter 7

Transfer of Rights Based on Participation in a Company

Article 34. 1. A shareholder may dispose of his interest or shares in a company only if the other shareholders approve. This approval must be expressed in writing.

2. A shareholder who does not receive approval to dispose of his interests or shares in a company can demand that the other shareholders designate another buyer within 3 months. If an agreement is not reached concerning price, payment terms or other purchase conditions, then the terms are determined by the court at the instance of the interested party after expert opinion is obtained.

3. If a buyer is not designated or the designated buyer does not pay the purchase price within the time period designated by the court, or the permit mentioned in article 5 is not issued, then the company is dissolved.

Article 35. 1. The heirs of a shareholder who is a physical person may not become company shareholders if the remaining shareholders do not approve and if the permit stipulated in article 5 is not obtained; this also applies to successors of a legal shareholder who is a legal entity.

2. If the approval mentioned in paragraph 1 is not obtained, the appropriate regulations of article 34, paragraphs 2 and 3, are applicable.

Article 36. 1. If the sale of interests or shares is to be by means of compulsory execution, then within 1 month after learning about the sales order the company may designate the individual who will buy the interests or shares at the price established by the court after expert opinion is obtained.

2. If the person designated by the company does not pay the court executive officer the price established by the court or does not declare approval of the proposed price within 1 month after the company is advised of the proposed price, then the interests or shares are sold in accordance with the procedures in the execution regulations.

Article 37. If the company is liquidated, the Polish shareholders have the first option to buy the company's assets and rights, unless stated otherwise in the company contract or other instruments of formation.

Chapter 8

Settling Disputes

Article 38. 1. The courts settle disputes in which a company is involved.

2. The disputes mentioned in paragraph 1 may be submitted to a court of arbitration in accordance with the regulations designated in the mandatory regulations.

Chapter 9

Special and Final Regulations, Changes in Mandatory Regulations

Article 39. In the Law of 29 September 1981 on Selfgovernment of State Enterprise Workers (DZIENNIK USTAW, No 24, item 123), the expression "as well as companies" is added to the end of point 4 of paragraph 1 of article 24.

Article 40. The minister of foreign trade supervises company operations.

Article 41. 1. This law does not concern companies whose formation and operation are defined by the regulations of:

1) the law of 6 July 1982 on rules for conducting small manufacturing business on the territory of the Polish People's Republic by foreign legal entities and foreign physical persons (DZIENNIK USTAW, 1985, No 13, item 58).

2) the law of 26 February 1982, the Bank Law, (DZIENNIK USTAW, No 7, item 56 and 1983, No 71, item 318).

2. Except as subject to the regulations of article 42, this law does not concern international enterprises unless stated otherwise in an international agreement.

Article 42. 1. If the international agreement mentioned in article 41, paragraph 2 stipulates that the international enterprise or its subsidiary headquartered on the territory of the Polish People's Republic is a legal entity, then the enterprise or its subsidiary becomes a legal entity the moment it is registered in the trade register.

2. The authorized organ of the international enterprise or its subsidiary applies for registry in the trade register. A certified copy of the Polish text of the contract to form the international enterprise described in article 41, paragraph 2 or its subsidiary, or a certified Polish translation of the company forms the basis for registration. The contract should also include an attachment listing the names of the enterprise's or subsidiary's agents and directorate members.

3. The regulations on commercial registration concerning a limited liability company are used as applicable to register international enterprises or their subsidiaries, taking into consideration the stipulations of the international agreement.

Article 43. This law is effective 1 July 1986.

In place of the Chairman of the Council of State: K. Barcikowski

Secretary of the Council of State: Z. Surowiec

ECONOMY

POLAND

PLANS TO DEVELOP SMALL-SCALE ENERGY SOURCES ABANDONED

Warsaw RZECZPOSPOLITA in Polish 27 Aug 86 p 4

[Article by Janusz Zelezik, "Small-Scale Energy Sources: Idle Winds and Water"]

[Text] At one time we were fascinated by major investment projects only. Big and expensive was universally acclaimed, while small-scale could find no popular support. According to such assumptions, in the Jelenia Gora valley, almost 600 small-scale water power stations were abandoned, and their equipment dismantled. They used to generate electric power for flour mills, sawmills, paper mills, and all kinds of small-scale factories and workshops, as well as for major agricultural farms.

A few years ago the problem has reemerged. We devoted it an article in RZECZPOSPOLITA on 11 August 1983. I wrote there about some devotees who wanted to use such cheap but unappreciated sources of free energy; under the sponsorship of the Karpacz Lovers Association they even set up a Small-Scale Energy Sources Society. Among several dozen of its members there were people of various professions, including an architect, Antoni Bill, and a certified engineer Kazimierz Grochowski. Both were permanent residents of Karpacz. The former engaged in using the energy of streams and mountain rivers, the latter--of winds. The society set ambitious targets: to restore most of the small energy generating plants.

Enthusiasm Dampened.

To engage in this kind of activity, [the society] had first to register its statutes; that took them many weeks of work. Unfortunately, their application was rejected: they were reminded that there already existed a central board for small-scale energy sources, affiliated with the Association of Polish Electrical Engineers [SEP], and the society should therefore act within its framework.

"Our statutes indicated that we intended to engage in economic activity, that is to say, to render services to plants interested in water power generation: to prepare blueprints, to start production of spare parts and elements for such stations," A. Bill explains. "We have won support for our ideas in various industrial plants, not just in the Jelenia Gora valley. In Wroclaw

DOLMEL plants we got a reply: just order, and we will deliver all the generators you need. In Szczecin ELMOR, which had agreed to turn out slow-speed engines, we heard the same answer. But the matter fizzled out, since we had no money for such a purpose.

"As a society, even before its registration had been denied, we put together a list of all flows fit for power generation; we worked out a national meteorological analysis from the point of view of exploiting wind power. On such a basis we prepared action guidelines for those areas. It is imaginable that the whole stuff was never elaborated to perfection, but I claim that those plans might have at least provided a working base to start such ventures which would, partially at least, rebuild our small-scale cheap energy sources"

No Support.

For 3 years virtually nothing has been done to promote small-scale energy sources. Just four water power stations have been activated. Many people left the society, finding no support for their unpaid but most valuable activity. Only the idea survived. But K. Grochowski, employed at KARELMA in Piechowice near Jelenia Gora, keeps trying to do something about it.

He keeps designing new constructions for wind turbines. He even received a patent for one such construction, but . . . there the matter rests. He, too, has gradually lost hope that anything at all can be done.

As a matter of fact, a lot can still be done. A few enthusiasts have submitted a suggestion to build a wind power station at the foot of Sniezka mountain, where winds blow constantly. They had in mind two or four aggregates, with a joint capacity of 4 MW. It is a lot. All of Karpacz uses that much electricity. It is therefore an attractive idea, since heating fuel for the Sniezka tourist inn has to be hauled. Both heating oil and its transport are expensive. The opponents claim that in winter the planes wings will become covered with ice, and the station will have to stop. That might be true, but the planes could be warmed up (as far as construction is concerned, the problems have been solved) thanks to the energy generated by the wings. Their own energy.

"There is no sponsor ready to fund it," repeats Mr. Bill. "But still it is worth thinking about. Electric power generated by a wind station might serve to heat many rest houses. It would save hundreds of tons of coal and coke, which now have to be hauled. In addition, it would protect the environment, and for the smoke-covered Karpacz that, too, has enormous importance" As late as 1959, a 120 kW water power station used to work at Karpacz. Later it was abandoned and forgotten. Now there have been plans for its revival. The society members have blueprints ready. In the first stage the station would regain its original capacity, in the next one, it would be enlarged to 400 kW. When will the idea become substance? It is difficult to say, since the turbine and some 400 meter pipes are still missing. The municipality cannot afford them.

Who Is Going To Help?

Wind and water power generation is not just a local issue, particular to Jelenia Gora. It is a nationwide problem, of immediate interest just now, when we are looking for cheap sources of electric power, cheap and "clean" as befits environmental protection. Research on possible use of wind and water power have been neglected, and lag far behind those in the USA, Federal Republic or Germany, England, or Sweden. The costs involved, including installment of facilities which have to be produced, should be analyzed in a long-term perspective. The outlays will be repaid with interest. After a period of depreciation, power becomes free. Not to mention the saving of solid and liquid fuels.

The society's studies indicate that if the program for growth of small-scale energy sources could be fully implemented, the increase in electric power would at least equal that produced by Turowszow power station (2,000 MW). There are grounds enough to strive for it. Question: Who is going to get seriously involved? Perhaps some industrial plants, either those close by, or else those situated near mountain rivers and streams? Major agricultural farms, which could fund construction of a power station for their own needs? One director told me squarely: "What do I need a hassle of a water power station for, as long as electricity is being provided through a state-owned grid? I might consider the question, were I promised some tax exemption. Nowadays I have to pinch every penny. What with the reform, you know, and the devastated machine park . . ."

Yes, perhaps . . . but the SEP and its central board, to which the problem had been--so to say--assigned officially, has not done much about it. That is how they feel on the spot. Who else, then?

The expectations for the development of small-scale energy sources have been strawn in the wind. "How much could have have done about it over the past 3 years . . ." sighs Antoni Bill. Yes, it is indeed a pity.

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CSO: 2600/698

ECONOMY

POLAND

PROFITEERING IN SCARCE FUEL, BUILDING MATERIALS DISCUSSED

Warsaw ZYCIE WARSZAWY in Polish 30-31 Aug 86 pp 1,2

[Text] The Central Commission against Profiteering chaired by Vice-Premier Jozef Koziol dealt with irregularities in sales of fuel and building materials at its meeting on 29 August. The results of inspections and checks conducted recently by numerous offices and institutions were the subject of discussion.

The Central Union of Cooperatives, "Rural Self Help," and the Minister of Domestic Trade and Services presented their evaluations, from which it appeared that the flow of supplies in fuel and building materials is atrocious. Through three quarters of this year, sales stations received, for example, 86 percent of the coal and 47 percent of the coke needed. It was worse with building materials. At midyear, for example, 8 percent of the iron products, 35 percent of the cement, 25 percent of the lime, 9 percent of the insulation and 29 percent of the tarpaper ordered were delivered. It is no wonder that numerous irregularities were committed during the sale of these articles. But from the material presented, it did not appear that they were very blatant.

Representatives of the Supreme Chamber of Control [NIK] and the State Trade Inspectorate argued for that assessment. In their opinion, inspections conducted by trade units and local authorities are often a formality.

As calculated by NIK, 1.5 million tons of coal were sold with an infringement of distribution rules. In Warsaw province, 5,400 tons of coal dust, in addition to allotments were distributed. In Wroclaw, horticulturists received 17,000 tons of coal for non-existent tillage; in Piaseczna, four horticulturists received 320 tons of coal for contracted commitments that were never fulfilled; in one community (the place was not named), the manager divided coal among himself and his friends, leaving the leftovers for those standing in line.

In 80 percent of commercial units, documentation of sales of fuel and building materials was not inspected. And the documentation was prepared by people with the best intentions who had no idea how to prepare it.

Many speakers called for introducing central distribution of scarce goods, such as cement, which at the beginning of the year was on the open market, but in July was forced to abandon that method of sale.

It was said that the prevailing prices of fuel encourage no one to economize. The need to decrease allotments of anthracite coal into so-called allowances was raised and protested by an OPZZ representative.

Many motions were presented; generally they were such as these: universally verify allotment cards for fuel (eliminate "ghosts" and double allotments for one household), compel production of heating devices using inferior fuels, ascertain who heats his home with electricity and also receives coal, standardize (read simplify) regulations on the sale of fuel. As far as building materials are concerned: strict, central distribution and limitation to the minimum of permits for new construction, at least until projects already started are completed--more than 400,000 individual projects. And above all intensify inspection of the operation of sales stations.

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ECONOMY

POLAND

WORKER PARTNERSHIP COMPLAINS OF BUREAUCRACY, TAX THREAT

Warsaw RZECZPOSPOLITA in Polish 28 Aug 86 p 4

[Article by Janusz Zelezik: "Thanks to Worker Partnerships: Cheap and Fast, but with Misgivings"]

[Text] In the Polifarb Paint and Lacquer Factory in Wroclaw the custom of appointing worker partnerships to solve specific problems has existed for some time. It began with those that were charged with initiating specific technical or technological solutions. For example, after coming up with the technology for manufacturing water based paints, which have rather broad applications (this year 10 tons will be produced), the worker partnership made the installation components within the framework of technical development.

"They did it cheaply, quickly and well," said technical director Zdzislaw Kobylt. "Over time, as needed, we have appointed various partnerships. In the first half of this year we had 13 of them. They are dissolved after completing their specific tasks. Three groups of a few people work continually. They do work stemming from our program of improving management effectiveness."

I met with the three directors of those partnerships. The conversation was interesting for many reasons.

Zenon Pielas, foreman of the repair and construction division:

"The pallets onto which we load the paint and deliver it to customers were an enormous problem for the factory. Pallets are returnable containers. A great majority of them came back to us damaged and had to be repaired. Up until last year we sent the pallets to a cooperative in Koscian. We paid 540 zloty for each repair, not counting the cost of round trip transport. Factory management proposing appointing a partnership to repair the pallets on its own. I took up the task. Eight people are currently working in my group and they do not do this kind of work at all on a daily basis. We all learned the work. In accordance with the contract, the factory pays us 45 zloty for repairing one pallet. According to the plan, we should repair 20,000 pallets this year. By the end of July we had already repaired 15,36, for which we received 691,200 zloty. In July the average for each member of the partnership was 16,20 zloty. To the total payment of our wages, 776,000 must be added for materials, equipment use and electricity. In sum, for 1.5 million zloty, the factory gained 16,8 million. I would add that we use materials salvaged from pallets that cannot be repaired. Those are additional savings."

The seven-person partnership of Piotr Chojda deals with renovation and assembly of rings for closing 50-liter paint containers. From November of last year to the end of July this year, the group reconditioned 40,000 of those rings. The factory pays 16.2 zloty, including material, for each. It was not that long ago that the rings were not repaired and new ones were bought at 41 zloty each. The savings have already surpassed 10 million zloty.

Finally, the six-person partnership (11 people signed the contract) of Stanislaw Cnachula undertook the dismantling of unnecessary and inoperative heating, water and technological installations of piping of all kinds. This year the group dismantled 3.5 kilometers of piping, for which it received 215,000 thousand zloty. If the work had been assigned to a specialist firm, the factory would have had to pay 1,680,000 zloty. Salvaged material that can be re-used, such as fittings, pipes, galvanized zinc and aluminum and insulation, must also be included in the savings.

My interviewees did not hide the fact that that additional income after normal working hours interests them a great deal. Especially since some have decided to build their own homes. This form of supplemental earnings is gaining much popularity in the factory.

But certain misgivings and reservations have been cropping up. Said Z. Pielas, "Our partnerships are gradually becoming overgrown with bureaucracy. Not long ago it was enough that we got a receipt from the warehouse for a specific number of pallets and on that basis we were paid. Now that is not enough. We have to do an entire bureaucratic documentation of our work. That is my job as director of the group. It takes up quite a lot of time and I work like every other member of the partnership from 3 p.m. to 7 or 8 p.m. every day and every free Saturday. Is the group supposed to do my work because of the paperwork? How should I square accounts with them? How many pallets is my paperwork worth? In addition, regulations for the division of the group's earnings are required of us. Confirmation from the factory guard of their presence in the plant from this time to that time is required of partnership members. This is supposed to be document showing that we really sat in the plant after working hours. Furthermore, determination of the rate for work performed is required. Could the point be introduction of technologically justified standards. The people in the partnership are continually improving their work and working faster. Imposing standards for the work will reduce earnings."

Piotr Chojda adds that there are rumors that earnings for normal work, along with bonuses and profit sharing, would be merged with partnership earnings and fater exceeding 460,000 zloty annually, the balance would be subject to taxation. It would cease to be worthwhile. After all this is taking place at the expense of our time and well being and means giving up many things.

Formalizing and bureaucratizing the work of the partnerships arouses justified reservations. Can't the amount and quality of the work performed simply be the best evidence?

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ECONOMY

POLAND

BRIEFS

MINING TALKS WITH PRC--A group of executives from mining companies in the Chinese People's Republic, headed by the deputy minister of coal industry, Hu Fuguo, spent 2 weeks visiting enterprises subordinated to the Ministry of Mining and Energy. The guests learned about the organization of work, extraction technology, and social and living conditions in various hard-coal mines, including among others DYMITROW, BOLESŁAW SMIALY, and NOWA RUDA, in the Center for Mining Mechanization KOMAG, as well as in a lignite mine and in the power station at Belchatow. At the end of their stay in Poland, the delegation was received by Czesław Piotrowski, minister of mining and energy. Discussed were the present situation and the prospects for growing cooperation in mining between the two countries. [Text] [Warsaw TRYBUNA LUDU in Polish 27 Aug 86 p 2] 12485/13104

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ECONOMY

ROMANIA

EFFECT OF HYDRAULIC STRUCTURES ON FISH PRODUCTION

Bucharest HIDROTEHNICA in Romanian Vol 31 No 2, 1986 pp 52-54

[Article by Dr Nicolae Bacalbasa-Dobrovici, professor at Galati University, member of Hydraulic, Hydrology, and Water Ecology Commission of the Academy of the Socialist Republic of Romania: "Hydraulic Structures and Installations and their Role in Protecting and Stimulating Fish Production in Romanian Inland Waters"]

[Text] Romania has been a country with one of the highest rates of transformation of inland waterways in the world. This fast pace is being maintained, and long-range projections for economic and social development of Romania to the year 2000 call among other things for building the most important water power structures by 1995 and for completion of irrigation systems for all areas having conditions suitable for the purpose. Such areas amount to approximately 6.5-7 million hectares. Together with the development projects for navigation, embankment, stream bed training, etc, hydraulic structures are bringing about profound change in the hydrologic characteristics of inland waterways. These characteristics, which evolve constantly but slowly, over a period of millennia, have permitted just as gradual an adaptation of aquatic creatures to new conditions. Whenever transformations are radical and rapid, the adaptive mechanisms of aquatic creatures, and fish in particular, are subjected to intense stress resulting in considerable decrease in some species and in more or less rapid disappearance of others. More often than not, the species of fish affected are the valuable ones, so that the consequences are also of an economic nature.

It was in this context that the decision was made by the European Consultative Commission for Fishing in Inland Waterways (CECPI), following the symposium organized by the FAO and held at Aarhus, Denmark, in May 1984 [1], to recommend to the CECPI countries (including Romania) that they devote greater attention to the problems in question in their research and that solutions be found for these problems.

1. Impact of Hydraulic Structures and Installations

Some water areas disappear as a result of the building of various types of hydraulic structures, while others come into being. The ones that disappear generally have been populated by fish adapted to their habitat. The water areas formed as a result of human activity produce fish whose evolution is marked by great variation, but as a rule the piscicultural value of

such areas is lower than the initial value of the corresponding natural water areas. Hydraulic structures affect a number of elements essential in maintaining fish populations in developed waterways. The most important of these are displacement of the fish, their reproduction, survival of the young, and increase the supply of food for the adult and young. Harvesting is rendered more difficult, so that industrial fishing in transformed waters poses a special problem.

Displacement of fish is passive or active. Young forms of fish are displaced in particular by passive means, by the current of the water. Consequently, the young forms are forced downstream and are caught up in turbines or pumps of industrial installations and in irrigation systems, where they generally perish. When we consider that 6 to 7 cubic kilometers of water are pumped each year for irrigation alone, and that this figure is to be doubled in the future, we see the significance of this circumstance. No research has been published in Romania on this subject. Consequently, we will refer to data in the specialized literature on areas similar to ones in Romania from the climatic and hydrologic viewpoints.

One parameter of fish survival of displacement is the rate of such displacement referred to its various specific conditions (maximum, drop distances, critical displacement, migratory displacement, etc). These values vary by species, length of specimens, and environmental and physiological factors. The execution of hydraulic engineering projects often leads to increase in water speed in some areas beyond the critical speeds for the fish, that is, the speed of the water exceeds the maximum which fish can overcome and the fish are consequently carried downstream. As an example, a speed near 1.2 meters per second may be considered to be the critical speed for bream of any size [2]. High water speeds and dams prevent fish from reaching feeding and/or reproduction areas.

Reproduction of fish takes place under certain conditions and will not come about if these conditions are absent. In recent years reproduction carp have been caught in the Danube with roe in a state of degenerescence (resorption), inasmuch as the carp reproduces with vegetation from recently flooded land, and as a result of the embankment projects carried out this species (along with others) has lost its reproduction areas and is regressing from year to year. Clogging of the reproduction areas of generatively rheophile species leads to the same result. Water level variations over a 24-hour period, which are frequent in reservoir operation, also lead to destruction of deposited fish roe [3].

Development of the food resources of adult and young fish is affected to different extents by hydraulic structures. Storage lakes ensure more abundant food resources during the first years following flooding, while embankment and stream bed training lead to impoverishment of these resources and to decrease in the number of fish.

One of the important processes in exploitation of fish in waterways transformed by hydraulic construction is industrial fishing. It is pursued at places specifically adapted for the purpose (with nets). Failure to prepare the nets in time leads to great difficulties and considerable additional expense [4].

2. Protection of Nature and the Landscape

Protection of the landscape is an esthetic desideratum. Protection of nature is a necessity with long-term implications. Improvements as close to natural conditions as possible permit continuing primary and secondary production from waterways, while impairment of the latter leads not only to decrease in production of fish but to decrease in the capacity for self-purification. This is a potential threat to a country with moderate water reserves such as is Romania.

In some countries hydraulic construction under approximately natural conditions has begun on a planned basis. A standard (OEWWV-Regelblatt 301) was issued in Austria for this purpose in 1984, especially for the development of rivers.

3. Legislative Provisions and their Application

The general framework for protection of waterways and aquatic fauna is provided by the Waterway Law (No 8/1974), the Law on Environmental Protection (No 9/1973), and specific provisions for their application in the Law on Adoption of the National Long-Term Program for Development of the Drainage Basins of Romania (No 1/1976).

Article 9 of the program specifies that the new fishing facilities will total 140,000 hectares and that fishing will be conducted in storage lakes of constant volume, the area of which will reach 230,000 hectares in the future. At the same time, the fish resources of waterways and natural lakes are to be used to the maximum.

Measures deemed to be necessary to mitigate the impact of hydraulic structures on fish are included in Law No 12/1974 on pisciculture and fishing. Section II of this law, on development of pisciculture, provides in Articles 6 and 8-11 for maintenance of natural fish production and for fishing in inland waterways which are to suffer from the changes brought about by hydraulic engineering projects.

Responsibilities are divided between the National Water Council (CNA), which coordinates and reviews hydraulic engineering projects for optimum satisfaction of all needs, and three ministries, the Ministry of Agriculture and the Food Industry (MAIA), the Ministry of Forest Economy (MEF), and the Ministry of Education (MEI) which are responsible for conduct of studies, research, and experiments and elaboration and execution of projects, so as to ensure application of the most efficient technologies, installations, equipment, and instrumentation, as well as for training of personnel for the sake of uniform implementation of the program for development of pisciculture and fishing (Article 6).

All units in the country which build and operate water power dams and reservoirs (storage lakes) for regularization of water flow rates, irrigation, and recreation, have the obligation of carrying out the projects necessary for development of pisciculture and fishing, in accordance with recommendations to be issued by CNA, MAIA, and MEF respectively (Article 8).

On the Danube in particular the Ministry of Electric Energy has the obligation of building special structures along with the water power dams. The purpose of the structures is to allow sturgeon and mackerel reproduction stock to pass upstream over the dams and to prevent destruction of the fish (Article 11).

Enterprises, institutions, and state and cooperative economic organizations which use water from fishing basins have the obligation of installing devices to keep the fish in fishing basins from entering water supply systems for irrigation and industry, in accordance with recommendations issued by specialized district agencies. They must also ensure the water flow rate necessary for normal development of fish and take measures to clean fishing zones and build the structures needed for protection of fish. MAIA and MEF will establish the technical requirements for the structures specified and will monitor compliance with these requirements (Article 9). A field analysis of the situation shows that up to the present these provisions have not been fully applied, and in many cases have not been applied at all, aside from reservoirs classified as lakes, especially in Moldavia, and construction of new fish breeding facilities.

4. Structures, Installations, and Methods Necessary for Maintenance of Piscicultural Production in Waterways

Maintenance of piscicultural production in developed waters in individual cases requires a number of structures, installations, and projects to keep fish from entering industrial and agricultural systems in which they might perish, assurance of free circulation of fish, assurance of reproduction, growth, and fishing, and protection of young fish. Some of these activities can be carried out by the active fish breeding authorities, in some cases with the assistance (or goodwill) of other economic units. Other projects are not economically sound, even though they may be carried out by active fish breeding units subsequent to initial hydraulic engineering projects. For example, the installation of fishing nets for fishing in flooded storage lakes is about 5 times as costly as on dry land.

4.1. Installations for Stopping or Ensuring Free Circulation of Displaceable Fish

Displaceable fish are understood to mean fish that swim freely to select their optimum biotope.

Displaceable fish are endangered whenever they enter irrigation systems, cooling installations, some types of turbines, etc. The percentage of fish injured when passing over high spillways and through Francis turbines is very high.

At low water speeds it is relatively easy to restrain the fish by means of gratings and sieves. In the vicinity of gratings, the current speed should not exceed the critical speed of the fish, which differs by species and size. This speed is as high as 1.2 meters per second for sturgeon, 0.5 meter per second in the case of carp, and 1 meter per second for perch, sturgeon, and mackerel [5].

Nets must also be used when the barriers are to restrain young fish as well. In addition to flat vertical nets, usually positioned at an angle to the current vector, inclined nets are used, and most recently self-cleaning vertical nets, rotating net drums, and barriers with internal cleaning jets.

Anadromous migratory species of fish are stopped by dams. The hydrologic conditions, the operating conditions of the facility, etc are taken into account in selection of the point or points of admission of fish into a dam passage installation. This is a delicate task usually involving utilization of the biological-hydraulic modeling method.

Engineering works which ensure passage of fish from the tail-bay to the head-bay are passages which operate satisfactorily with a level difference of up to 30 meters.

Other cheaper and more efficient works have been developed in the last 20 years. They can be integrated into or situated in the vicinity of any dam. The principal types of such works are hydraulic and mechanical lifts, locks for fish, and stationary installations for accumulation and transportation of fish.

Hydraulic and mechanical lifts are used in North America and Eurasia. At the dam near Saratov, on the Volga, which cannot operate at high water when massive migration of mackerel takes place on the Volga [7], this species has nevertheless been passed through, along with sturgeon, sheat, bream, carp (aspilus), perch, and other species.

Fish locks have lifts as a distinctive structural feature. More than two-thirds of the sturgeon (along with beluga and sterlet) approaching the dam have passed through the lock at Kochetovsk on the Don. Other species, including mackerel, also pass through this lock.

The floating installation for accumulation and transportation of fish presents the advantage of mobility.

Starting in 1980, such fish circulation installations have been designed in the USSR in accordance with the CH II 11-55-77 standards [7].

It has been found that some of the young fish passing over high spillways or through turbines perish after a certain amount of time. The cause of death is gaseous embolism [8].

Several methods have been followed to reduce losses of young fish.

4.1.1. Electric Dams

Electric dams are successful in stopping large fish. Dams which stop small fish specimens, including the young, yield good results at low current velocities. They are less effective when the current velocity is high. The installation on the Ingulet River, for example, stops young fish 45 to 50 millimeters in length; hence the electric dam is ineffective during the first half of summer [9].

4.1.2. Water Filtration

Water is generally filtered through sieves or nets, and most recently promising results have been obtained by using blocks of filter material.

Even nets or inclined flat sieves become charged with waterborne organic matter, including young fish when the current is strong. One solution is to rotate the filter section through 90 to 180 degrees, when fouling matter is immediately washed off. Barriers of curved nets have been installed on the basis of this principle [10].

Blocks of foam plastic have begun to be widely used as a filter material. They are characterized by an efficiency of 70 to 80 percent in protecting young fish.

4.1.3. Ecological Methods

The difficulty of applying ecological protection methods based on various alternative locations and modes of water catchment operation lies either in uniform distribution of young fish in a basin or in changing this distribution, on the basis of one of the many environmental factors, if it is not uniform.

4.1.4. The Technical-Ecological Method

The technical-ecological method is based on the finding that at a higher water speed young fish are carried by the current as an inert body of specific form, mass, and volume. The young fish can accordingly be distributed over the cross-section of the current through appropriate hydraulic shaping of the structure of the current. A solution such as this permits transfer of the problem to the realm of engineering solutions, which do not depend on a multiplicity of variable factors determining the behavior and orientation of the fish.

The technical-ecological method allows evacuation from water intakes of up to 80 percent of the young fish swimming downstream [11].

4.2. Support for Fishing

Nets are installed at the beginning of development of the entire facility, in a special project. Part of the future bottom of reservoirs is usually covered with nets, over a minimum of 12 to 15 percent of the surface of the reservoir at its maximum depth.

3. Final Considerations

Protection of fish and encouragement of piscicultural production when building hydraulic structures exceed purely fish breeding aims in importance. The fresh water resources of Romania amount to 45 to 60 cubic kilometers per year, of which 45 percent is represented by the network of inland waterways and natural lakes. In 1983, with a total requirement of 23.5 cubic kilometers of water, the level of demand on inland rivers was 55 to 65 percent. It is estimated that the total requirement will reach 60 cubic kilometers per year by the year 2000 [12]. Hydraulic engineering development in accordance

with natural requirements contributes to self-purification of water, assuming part of the function of specially built installations. However, enrichment with organic substances takes place in water in which self-purification processes can occur normally and from which production of plankton and benthos has not been eliminated. Fish do not participate directly in the self-purification process, but they are indicators of water quality, consumers of organic substances, and aquatic inhabitants and almost the only link in the food chain extracted from the water for consumption.

The fish protection measures provided in Romanian legislation call for investment in research, development, construction, and exploitation.

In swamps, lakes, and ponds producing 80 to 2,000 kilograms per hectare, such investments are justified on the basis of piscicultural production alone.

On the Danube we are obliged to build hydraulic engineering structures and installations to protect and stimulate piscicultural production, both on the basis of our international obligations and because of the importance of the river to fish breeding (more than 50,000 hectares of water surface, migratory species, and species of fresh-water fish of high value).

Mountain rivers exceed 17,000 kilometers in length and have an area of nearly 8,000 hectares, and lowland rivers exceed 9,000 kilometers in length and vary widely in area, as a function of the water level. For a number of reasons, the piscicultural output of rivers is declining. The mountain rivers are worked by the MEF and the AGVPS (General Association of Sports Hunters and Fishermen), and the lowland rivers by the AGVPS. The piscicultural output of the latter is small. In 1950, the total maximum output was 220 tons, representing an average production of 25 kilograms per kilometer [13]. Profitable investment from the viewpoint of fish production is consequently out of the question. The rivers represent resources for sports fishing whose recreational function is not to be neglected in Romania, in view of the rapid industrialization of the entire country, coupled with the economic contribution distributed among a large number of families.

The situation is entirely different in artificial reservoirs, and the solutions adopted must take into account both the current situation and the situation in the immediate (1 to 3-5-year plans) or more distant future.

The establishment of viable and economically sound optimum solutions for the purpose of protecting and encouraging piscicultural production as part of the administration of waterways and artificial reservoirs can come about only through broad cooperation among beneficiaries, research personnel, research and development entities, and the central coordinating institutes.

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ECONOMY

YUGOSLAVIA

OIL IMPORT SITUATION DISCUSSED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 24 Sep 86 p 5

[Excerpts] In the next 4 months to the end of the year, Yugoslavia is supposed to import a total of 4,278,000 tons of petroleum, mostly from the convertible-currency market. This would completely meet the needs detailed in the Energy Balance Sheet for this year and supply the market with oil derivatives. However, a good part of this oil will not arrive until the beginning of 1987. [The above amount of oil is expected because] the oil industry says that it will try to get from the USSR three times more oil than that which is left to deliver in this part of the year, on the basis of the work our construction workers are doing and the increased quota agreed upon. If this is achieved, then Yugoslavia could receive more than 4 million tons of oil by the end of 1986, plus over 1 million tons of temporary reserves which would arrive at the beginning of 1987.

Up to September, a total of 8,062,000 tons of petroleum had been delivered, consisting of considerably more oil from the clearing-account than the convertible area; so in the months remaining this year the convertible market will predominate. In the first 8 months of this year about 26 percent of the planned oil deliveries had been made; i.e., it was initially planned to import 10.9 million tons, but later when the price of oil fell it was decided to buy 12.2 million tons from abroad. According to analyses of the General Association of the Yugoslav Oil Industry, an average of 30-40 percent less, on average, was paid for oil in this period than in the first 8 months of last year. The average, however, is deceptive, because it includes oil from 1985 temporary reserves for which the state price was paid, or considerably more than on the world market.

At the end of the first quarter of this year state organs and the oil industry agreed with suppliers to lower the price by \$6 per barrel. In the second quarter oil was paid for according to the "net-back" system in which the price is based on the price of derivatives on the free world market. Thus, for the first time, the Yugoslav oil industry is directly linked to the world market and has simultaneously reacted to it through the "net-back" formula. In July we paid between \$11.46 and \$12.30 per barrel and in August between \$10.54 and \$12.92 per barrel.

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ECONOMY

YUGOSLAVIA

SERBIAN ENTERPRISES OFFER DEVELOPMENT PROJECTS IN KOSOVO

Belgrade BORBA in Serbo-Croatian 1 Oct 86 p 4

[Excerpt] This year and next year the "Crvena zastava" [Automobile] Plants in Kragujevac will invest over 10 billion dinars in the "Ramiz Sadiku" factory in Pec to create conditions for employing about 400 workers. "Ramiz Sadiku" will be expanded and modernized to participate in the process of producing the 160,000 "Yugo" cars annually. In addition, the "Zastava" factory in Pec will be given the capability of producing 18,500 chassis frames for the "Zastava" truck and bus production. Serious consideration is being given to having "Trepca" in Titova Mitrovica, the Auto Factory in Pristina, and the "Balkan" enterprise in Suva Reka also participate in the production of cars.

All this is part of an extensive program of cooperation and production offered by the economy of the Sumadija and Pomoravlje region to the Kosovo economy which was adopted on 30 September in Kragujevac by the assembly of the Interopstina Regional Community of Sumadija and Pomoravlje.

The "Mose Pijade" cable industry in Svetozarevo, for instance, is interested in developing in the next 2 years a program for producing armatures and electric motors for cars, and other installations with an annual capacity of 500 tons, and jobs for 250 workers in Kosovo.

The largest program for development and employment in Kosovo from this part of Serbia has been prepared in the agro-industrial area. "Sumadija" in Kragujevac is willing to build a chicken farm with 6,000 hens, the "Mladost" dairy there is interested in building farms with 500 cows. The "Juhor" enterprise in Svetozarevo will build a distribution center for processing and selling meat in Kosovo Polje. The "Zitomlin" enterprise in Svetozarevo has completed plans to build a bread factory in Magura between Pristina and Lipljan. The "Morava" trade organization in Svetozarevo, which already uses the turkey farm in Gnjlane, is offering to build mini-farms with an investment of 7-10 million dinars per farm.

The Paracin glass factory is interested in pooling funds in agricultural production and is discussing with "Agro-Kosovo" the use of glass containers. It has offered to build a factory to produce basic raw materials for glass production.

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ECONOMY

YUGOSLAVIA

DROUGHT CONDITIONS IMPEDE HARVEST, FALL PLANTING

[Editorial Report] According to the 29 September 1986 issue of Belgrade BORBA in Serbo-Croatian, page 1, the harvest on over 3 million hectares throughout the country has started somewhat earlier because of the rapid ripening of crops. Dry weather has had adverse effects on the corn crop which, as of 9 October, was estimated at 11,936,000 tons (Belgrade PRIVREDNI PREGLED 10 October 1986 p 7), still termed a "record" but nevertheless about 200,000 tons less than initially estimated, although 2 million tons more than last year.

The drought has also impeded fall planting in many areas, but especially reported from Kosovo and the Slavonia-Baranja area of Croatia.

The sugar beet harvest as of 9 October was given as 5,996,000 tons, or 270,000 tons less than last year but from an area reduced by 12,000 hectares; the average per-hectare yield was estimated at 43.3 tons. In regard to sunflowers about 430,000 tons are expected to be produced or 197,000 tons more than last year, as a result of both higher yields and a larger planted area (by 77,000 hectares compared to last year).

Late August reports from the Federal Committee for Agriculture declared the wheat harvest this year to be 4.8 million tons, with 2,979,400 tons bought up, including 275,000 tons of wheat for seed. The harvest is about 60,000 tons less than last year, largely because 2,000 fewer hectares were planted and poor weather conditions lowered average yields by about 40 kilograms per hectare compared to last year (BORBA 23 September 1986 p 1). Although 62.5 percent of the crop was bought up which was considered very good, a shortfall of about 400,000 tons is expected and 200,000 to 300,000 tons would have to be imported; because, as JEDINSTVO (Pristina) of 27 August 1986 (page 1) explained, a good part of the crop is used for animal feed since wheat is cheaper than industrially produced feed, and at least 10 percent of the bread produced from this wheat is thrown out because of poor quality. This year's crop also does not promise quality flour and bread because of poor weather conditions which resulted in a lower than average hectoliter weight, it said.

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ECONOMY

YUGOSLAVIA

BRIEFS

EDIBLE OIL IMPORTS UNNECESSARY--According to Prof Dr Tihomir Vrebalov, director of the Institute for Field Crop and Vegetable Farming in Novi Sad, Yugoslavia should not have to import edible oil in 1987 or the following years because domestic production should be able to meet domestic and export needs. Sunflower, soybean, and rapeseed production and our processing industry can provide about 320,000 tons which corresponds to annual domestic needs. A decline in domestic demand for edible oil has even been noted as a result of the increased cost of living, so total needs are about 300,000 tons annually now. [Excerpt] [Belgrade BORBA in Serbo-Croatian 29 Sep 86 p 1] /6091

EMPLOYMENT RATE--According to the latest data from the Federal Committee for Labor, Health, and Social Protection, in the first 4 months of this year, 1,098,000 persons were unemployed, or 5.8 percent more than last year at that time, while in the first 3 months 6,469,000 workers were employed on average in the socialized sector, or 3.2 percent more than in the same period last year. The data which was contained in a report submitted to the Yugoslav Assembly showed that the rate of employment in 1985 was 2.5 percent more than in 1984; unemployment last year increased 6.7 percent. Kosovo had a 9 percent rate of unemployment, Vojvodina 4.2, and Slovenia 1 percent. Those waiting the longest for work are semiskilled workers (29 percent), unskilled (25 percent), and persons with a secondary school educational level (20 percent). Last year 550,000 persons were employed in the private nonagricultural sector, while 143,000 were newly employed in this sector, showing that the possibilities for employing additional workers in this sector continue to go unused. At the same time, the agricultural [i.e., rural] population last year totaled 4 million, or 18 percent of the total population; while the able-bodied farming population totaled 2.351 million, or 24 percent of the total able-bodied population. Despite measures which have been taken, the population shift from rural to urban areas continues to increase in some parts of the country, because of worsened conditions of economic operation in agriculture "especially last year." The report also said that at the end of last year 710,000 of our citizens were temporarily working abroad, or 127,000 less than in 1980. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 23 Sep 86 p 12] /6091

DROP IN OIL PRODUCTION--There will be adequate oil derivatives available up to the end of the year thanks to larger imports of petroleum. In the first half of this year 42,000 tons less (2 percent less) domestic oil was produced than planned, and the situation has not changed in the 2 months following. Consumers believe that refineries are deliberately extracting less oil because of lower prices. Yugoslavia produces only about 4.2 million tons of oil annually, so producers are affected very much by the price drop. Oil refiners say that the lag in domestic production is the result of meager and untimely investments in oil exploration over a number of years. This is especially so for INA-Naftaplin whose results this year are having a decisive effect on the overall status of crude oil production in Yugoslavia. INA-Naftaplin estimates that it will produce 100,000 tons less next year. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 24 Sep 86 p 5] /6091

GAS CONSUMPTION, IMPORTS--Planned consumption of natural gas is not expected to be achieved this year. In the first half of the year 1.270 billion cubic meters of natural gas was produced, or 2.7 percent more than in the same 1985 period but 18 percent less than foreseen in the Energy Balance Sheet for this year. Only 1.860 billion cubic meters of gas was purchased abroad, or 3.3 percent more than last year, but 17.3 percent less than planned. This year it was planned to increase natural gas production by one-quarter, which was obviously too ambitious. Consumption is stagnating and domestic production must give way to imports which have priority. [Excerpts] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 24 Sep 86 p 5] /6091

ELECTRIC POWER--In the first 8 months of this year Yugoslav electric power plants produced 47.1 billion kwh, or 1 percent more than planned and 5.4 percent more than last year. There is a potential of about 3.5 billion kwh of electric power in water storage lakes, or a little over the planned amount for this time of year and a solid reserve for the fall and winter. In the first 8 months of this year 1.2 billion kwh of electric power were imported and 2.1 kwh exported. In the remaining 4 months of this year electric power plants are expected to produce 27.898 billion kwh of power. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 24 Sep 86 p 5] /6091

CORN EXPORTS--Since the beginning of October 1985 up to now 2 million tons of corn have been sold to foreign buyers for \$200 million. Of this amount, 1,430,500 tons have already been delivered and the remainder will be delivered by the end of the year. Most was sold to North African countries, China, and Malta, as well as the USSR, Bulgaria, Romania, and Hungary. About 90 percent was sold under barter arrangements for oil, wheat, and producer goods needed in agricultural production. The price averaged about \$99.35 per ton, except in the last few months when the price went down to about \$72.50 per ton. [Excerpt] [Belgrade BORBA in Serbo-Croatian 1 Oct 86 p 1] /6091

CSO: 2800/24

MILITARY

GERMAN DEMOCRATIC REPUBLIC

NO RELAXATION SEEN FOR BORDER TROOPS

West Berlin DER TAGESSPIEGEL in German 18 Aug 86 p 3

[Article by Michael Mara: "Hate Propaganda Against the FRG Continues--
Conventions of Duty for the GDR Border Guards"]

[Text] In the 25 years since the military border barriers were built through the middle of Germany and through the middle of Berlin, the outward appearance of this border regime has changed in several ways, but not its revolting character. Every GDR citizen--who due to a lack of other options--attempts to turn his back on the socialist German state by choosing this path still risks his life. As yet, there has been no indication that the GDR has lifted the "order to shoot." Soldiers who are trained for border duty are still instructed that "Border violators are to be detected, apprehended or destroyed!" "Traitors," the political officers state, "are to be stopped."

The political climate in the border units is a mockery of Erich Honecker's repeatedly expressed wish for good-neighbor relations with the FRG. There has been no curtailment of the hate propaganda against the FRG. The armed forces and the federal border guard are characterized as being "as aggressive as ever;" their officers and generals are objects of the worst slander. Just as during war times, "contact with the enemy" is a punishable offense. Border soldiers are not even allowed to respond to a greeting from the "other side." The members of the border units are strictly forbidden to listen to Western stations.

Contrary to the relaxation efforts of the SED, no relaxation is anticipated at the border in the future. Instead, border guard officers have recently been heard to say that there will be no "compromise" when it comes to "protecting the border." "Compromise is possible in the realm of diplomacy, but not here with us at the border." With these words, which appeared in the Suhl SED newspaper "Freies Wort" a few weeks prior to August 13, a political officer of the border guard confirmed the unchanged hard line to which East Berlin adheres.

As proof of the supposedly serious situation at the GDR border, the SED mentions more than 44,000 "border violations" that are said to have been committed in the last 5 years by the western side. How this number was arrived at is known only to the leaders of the border guard. Apparently, any

instance of someone stepping across the line marking the border is counted as a "border violation." Since the actual barriers have often been set up behind the borderline, this occurs frequently.

Of course, it is clear to the GDR Ministry of Defense that "many of the border violations and attacks" can be blamed on forces that are working against a policy of relaxation. The ministry contends that the intent of these forces is "to use such provocations as a means of sparking major border incidents and other politically serious events." By using the peace-threatening dangers arising from such actions, the party and military establishment in East Berlin are attempting, 25 years after the wall was built, to legitimize the continuity of their border regime and to divert attention from their actual purpose: to make it impossible for citizens of the GDR to flee to the West.

The more than 50,000 border soldiers are assisted by several thousand volunteers. Most of these are functionaries and reliable comrades, former border soldiers and members of paramilitary combat groups from the border region. According to Baumgarten, there are "border assistance groups" in numerous communities on the FRG border. As far as possible, they are to intercept refugees before they head toward the border to provide the border units with information. The border assistants also patrol with the border soldiers and join in search parties. They have contributed to the capture of numerous refugees.

For some time now, there has also been an increased effort to recruit women whose husbands serve in the border guard or are active as border assistants. Even children and young people are expected to make a "contribution to the security of the national border." As Baumgarten stated during the discussion mentioned, there are special student task groups called "Young Friends of the Border Guards" at the schools in the border region. They are supervised by the border soldiers and are instructed, among other things, on how to respond when "suspicious persons" appear.

It is only fitting in this countryside that the pre-military "Society for Sports and Technology" (GST) wants to train more children, beginning at 12 years of age, how to shoot guns, as the GST director Vice Admiral Kutzschebauch announced at a meeting of his organization. Twenty-five years ago after the wall was built, the GST, at the bidding of the SED, initiated the pre-military training of GDR youth.

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POLITICS

HUNGARY

TRADE UNION SUPPORT OF REFORM PREDICATED ON MERIT

Budapest MAGYARORSZAG in Hungarian 6 Jul 86 p 25

[Interview with Sandor Nagy, Secretary, National Council of Trade Unions:
"Reform and the Trade Union."]

[Text] Sandor Nagy, Secretary of the National Council of Trade Unions [SZOT] briefed MAGYARORSZAG concerning the activities of Hungarian trade unions following their Congress last February.

[Question] It would appear that since the conclusion of the Congress the public has difficulty perceiving union activities. What's your opinion?

[Answer] The actual work of unions does not necessarily coincide with what the public recognizes as such. I say this with a measure of self-criticism: we have not yet learned that we must present a continuous and total picture of our activities. My conscience is clear, however, concerning the substance. Today's situations do not permit a reduction in our activities; the unions endeavour to help resolve the economic problems.

[Question] But it would seem that not everything is working out the way it was charted by the Congress.

Recommendations to the Government

[Answer] That is true, unfortunately. Recently, our economy, the dynamics of production, our national income and the balance of trade did not fulfill our expectations. This then creates a new situation with respect to the pace by which we are able to realize our approved plans, and the efforts we make for the realization of those plans. We've made a bouquet out of the economic, distribution and social problems and recommendations that preoccupy our society--as those emerged during the preparatory period of the Congress--and without delay handed that bouquet to the concerned governmental authorities. The government found our recommendations to be just and well-founded. With respect to a few details of certain issues we have already reached favorable agreement. Examples include the maintenance of state support for recreation,

free local transportation for those over age 70, etc. The government did not reject our views concerning just compensation either. On the other hand we yielded with respect to the fact that the latter issue must be decided on its merits only after an improved economy is capable of carrying the extra burden. In brief: we have begun implementing the resolutions brought out by the Congress, but their pace of implementation depends on economic developments.

[Question] The fact that the economy did not develop in the desired direction may threaten the implementation of the objectives of the seventh 5-year plan. How do the unions view this? What do they see as the cause and what can be done?

[Answer] There is no conceptual disagreement between SZOT and the government concerning the causes of the unfavorable developments. This, however, does not mean that there are no disagreements in terms of emphasis. The objective factors, such as the severity of last winter, losses resulting from deteriorating exchange ratios, etc., did influence the Hungarian economy. Beyond these, however, there are factors we have control over, and those are more important.

For example, we have hardly made any progress with respect to changing our economic mechanisms. In order to finance the deficit of certain branches of industry, the government is being forced to take away means from enterprises that have a positive balance. This, of course handicaps those who are able to show results. This is a diabolic circle from which we ought to break out as soon as possible. This represents new tasks for the unions also.

Unemployment?

[Question] What priorities do the unions have with respect to employment? Do they endeavour full employment or efficient employment?

[Answer] We endeavour both. We find efficiency in employment as indispensable, but we also want to achieve full employment, which is one of the cardinal tenets of socialism. We are trying to avoid unemployment. We do not perceive this, of course in a mechanical fashion, namely that everyone should be able to find employment within his original place of work and no one should have to change employers. Needless to say, there will be a lot of human dilemmas if one must give up a workplace of a decade or so old, or, if one has to change trades. Nevertheless the unions present no obstacles to organizational changes. But the manner in which such changes are being implemented makes a big difference. In such cases we feel that it is necessary to examine the situation with circumspection: how can a discontinued product be replaced, how much would it cost to import such products, and how much would product modernization cost. Only if all these factors support discontinuance of production should an enterprise be closed. But in such a case one has to find employment for the affected people. In other words, efficient employment is a requirement at the enterprise level, while full employment is a consideration of the national economy. This principle must prevail.

In two out of the four major deficit industries-- metallurgy and meat packaging--we have reached decisions concerning modernization, crisis management and occupational security. Soon the government will consider recommendations relative to the coal mining and high rise construction industries. A regulation having the force of law has been prepared. It concerns the simplification of the legal conditions of the liquidation of discontinued enterprises. This is an important step. But it is equally important that individuals adversely affected receive temporary assistance until they are rehired. The government is in agreement with our recommendation: the period for notice of termination must be extended, and those, who of no fault of their own are unable to find a job, should receive assistance for a specified period of time, near the level of their previous average earnings.

[Question] What do you consider as further tasks to help overcome the present difficulties?

[Answer] For example, aside from what I have mentioned before, we must provide a green light to technological development. We have been restraining capital investments for a decade. (E.g., in the sixth 5-year plan the ratio of accumulation constituted only 10.5% of the national income--a large part of the means of production have been written off.) This may sound odd coming from a union representative, nevertheless if we disregard the need for technological development, our problems will be even greater in terms of our standard of living.

We consider it our task to improve economic management activities at all levels. Unity in implementation is being considered of special importance. Debate should precede decisions, but once a decision has been made, the energy should not be spent on explaining why one cannot realize objectives that are really not easy to realize. We feel that in certain places the adoption of new management styles also caused difficulties. In times of economic hardship, this type of reorganization distracted those concerned with production management, and to an extent affected the payment of wages that were disproportionate to accomplishments. Generally speaking, the attention of collective enterprises and of their leaders focuses on wage policy within a given year. This is understandable, of course, but this kind of thinking adversely affects the medium- and long-range development plans of enterprises. Jointly with the concerned governmental authorities, we are examining at present just how wage regulations tied to accomplishments could be based upon agreements reached between branch organizations.

Primary work hours and income

Insofar as the seventh 5-year plan is concerned--we could refer to that as the position taken by the 13th Congress of the Party--our views are unchanged. The plan can be implemented albeit with great effort. All of us must work toward this goal. This, of course, is not merely a question of intent, the necessary conditions to fulfill the plan must also exist. Not to give up with the achievement of the planned goals ranks number one among these conditions.

[Question] It has been agreed upon by several forums, including the Congress of Trade Unions, that one should be able to earn an income that is sufficient for livelihood, during primary work hours. In practice, however, ...

[Answer] Indeed, there is more talk on this subject than action. It is evident that we cannot accept as our goal that the normal needs of a large part of Hungarian society may be satisfied only by virtue of overtime, nor can we accept that the tasks provided in the economic plans may be fulfilled only through overtime. A situation like this must not persist-e.g. an outstanding, skilled worker earns 40-50 forints per hour during primary work hours, while he can earn double of that amount in an enterprise workers' business partnership. If he is being referred by an agricultural cooperative, the cost of his work to the company will be the triple of that amount. At the suggestion of the unions, the government is now studying the ways in which the experience gained in small enterprises could be applied during primary work hours. We hope that this examination will be concluded during the second half of this year, and that next year we can make practical advances.

[Question] How do unions view reform?

[Answer] A number of articles that appeared in the western bourgeois press accuse the Hungarian unions. They say that the unions are the chief opponents of reform, that they are the hot beds of 'left-wing, workers' demagoguery'. Occasionally one hears these things here in Hungary too. I would like to state clearly and unequivocally: the Hungarian unions support the merits of the reform process. Any questioning of this fact is unfounded since the direction and manner of Hungarian economic development has already been decided. Needless to say, advocating economic reform is not synonymous with the outright support of each and every practical step, without debate. We are convinced that each solution suggested is qualified by the results achieved. Some opinions, like a recent one that appeared in the foreign press, are useless. The article quotes a Hungarian economist, according to whom 'the economic situation is difficult, we have many problems, but economic reform continues to progress.' (Views like this one are as absurd as they are dumb.) And I'll repeat: individual steps within the reform process are not qualified by the intent /that brought them about/ but by the results.

And so, we are endeavouring to conceptualize the effects of the individual reform steps on society, and to find desirable solutions. This is the elementary duty of trade unions that accompanies a socialist democracy. But it is in the best interest of the advocates for reform to establish social controls which prevent the possibility of discrediting the reform. Certain actions that were not quite well thought out, or which could possibly run counter to the interests of the people, could adversely affect the reform. Accordingly, when trade unions convey the concerns of the workers, they are not hindering reform. Instead they are looking for approaches to reform, approaches which are most acceptable to society under adverse economic conditions.

12995

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POLITICS

POLAND

FORMER MINISTER RECALLS SOCIALIST REALISM, MEDIA ROLE

Poznan WPROST in Polish No 33, 17 Aug 86 pp 4-6

[Interview with Wlodzimierz Sokorski, former minister of culture, president of Radio Committee and ZBoWiD, currently editor-in-chief of ZYCIE LITERACKIE, by Piotr Andrzejewski and Krzysztof Golata: "Politics, Women, and Me"; date and place of interview not specified]

[Question] In preparing for today's interview, we thought about how to address you properly. You have already held the posts of minister of culture and president of the Radio Committee and ZBoWiD [Union of Fighters for Freedom and Democracy], and you are still the editor-in-chief of MIESIECZNIK LITERACKI.

[Answer] One can be a minister and a president, but on the other hand being an editor is a profession. I have been working as one since the prewar days, and that is how my identity card reads...

[Question] In the book "Who's Who in Poland," Wlodzimierz Sokorski appears as a journalist and man of letters. The term politician is missing, however...

[Answer] I am not certain whether being a politician is a profession. I think that it is rather a vocation.

[Question] The motif of politics appears very strongly in your memoirs and all of your journalistic writings. You are among a small group of writers who deal with the so-called sensitive subjects, such as, for example, the education of the Polish left in the USSR or interpersonal relations at the highest levels of government in various regions of People's Poland. Why is it that such issues are brought up so rarely in our country?

[Answer] What happens is that as a rule we treat the so-called objective historical truth with embarrassment, trying to present reality not the way that it is but the way we would like it to be. We reduce it to speeches, votes, and resolutions. I want to call attention to the fact that we still lack an authentic written history of the party and People's Poland. I am not speaking of this without reason, because for many years I participated in the work of the Central Committee's History Commission. We jointly wrote a multivolume work that went to the archives instead of a publishing house.

Instead, books are coming out that give a simplified picture of Polish history... We are often afraid to write about various facts, thinking that the enemy will exploit this. Meanwhile, the facts come to the attention of the public anyway by various paths, and the opposition exploits this twice as much--adding its own interpretation to them. As far as I am concerned, I always try to write about history, if not in full detail, then at least in such a way as to leave the greatest trace of the historical truth.

[Question] You also made history, holding various posts, for example in the area of cultural policy, as the minister of culture from 1948 to 1956. We are interested in how you assess your work in that post today.

[Answer] Those were difficult times. My role as the minister of culture consisted of acting as a so-called buffer between creative workers and certain representatives of the government. This may sound immodest, but I attribute to myself and the team that worked with me a share in the fact that it was possible to curb many negative phenomena from that period in culture. Political repressions did not affect creative circles to a great extent. We were able to preserve the continuity of the development of national culture. Admittedly, socialist realism, which was introduced in an administrative manner, was the dominant trend, but it was not the only one. We preserved the right to exist of other trends in art, of a so-called experimental nature. As the minister of culture, I tried never to impose my own artistic criteria. Dabrowska and Galczynski were published, although the latter was frequently lectured by Kott, Wazyk, and other guardians of socialist realism at that time. As minister of culture, I assisted, financially as well, in the establishment of a small theater in the apartment of M. Bialoszewski, which I often attended. Cybis, Stern, Jaremianka, and Kantor worked freely during my tenure, even though they were distant from socialist realism. For example, I told Cybis, "Paint your flowers and good luck to you, but also paint me a postimpressionist Lenin, so I can have an argument to use..." I maintained good personal relations with many creative artists, for instance with Kobzedej and Eibisch, because they remembered that I was trying to protect them from the consequences of decisions made at considerably higher levels than mine. Please also bear in mind that during those difficult times there was no problem in obtaining the works of Mickiewicz, Sienkiewicz, and Zeromski, which were published on a large scale...

[Question] "The Brigade of Grinder Kachan" and "The Tractors Will Win the Spring" were also published, however...

[Answer] That was not exactly the greatest misfortune. Dejmek presented the "Brigade" very nicely... Scibor-Rylski wrote "Coal" then, and Konwicki, Brandys, and Zalewski wrote in a very socialist-realist manner...

[Question] You have spoken about the "positive elements" of your activity as minister of culture. Don't you see any mistakes, though, that you would still be ashamed of?

[Answer] I would certainly not subscribe to all of my speeches from that period, although I think that they do not lend themselves to such mockery as happened recently with some other speeches in POEZJA, since I always tried to

maintain a certain distance from what I was talking about, without simplifying many things too much. I certainly made mistakes in my personal policies. I will give you two examples of decisions that I still have pangs of conscience about today. The first has to do with Leon Schiller and his leaving the Polish Theater. It seems to me that if I had been able then to stand my ground against Bierut, who often showed understanding on many issues, and also against Berman, I would have succeeded in convincing them that this departure was a mistake. The second example is Wladyslaw Strzeminski. Allowing a situation in which this famous painter found himself without any means of support for some time weighs heavily upon me as the minister of culture at that time...

[Question] Listening to you, it is difficult to free oneself of doubts about the conflictless nature of the "buffer policy," since if you carried it out deliberately, it certainly would have had to encounter resistance from certain members of the political leadership...

[Answer] Bierut, who was very firm on economic and political issues, showed a great deal of understanding for culture and education, perhaps because he was a printer by profession. In principle he accepted any reasonable voice. That is why in principle we did not have any police repressions in literary circles, as I have already recalled. Admittedly, Bak was arrested, but he was freed very quickly. Bierut approved the "buffer policy" and was fully aware of it, and praised me for it a couple of times. It was worse with Berman, who conducted a very rigid policy, although he softened a bit after 1953, after Beria's arrest. It was also like that with Luna Brestiger and Pawel Hoffman, the chief of the Central Committee's cultural department. I should also say something, though, about the Union of Polish Writers, whose secretary, Kazimierz Brandys, was one of the biggest dogmatists I have known in my life. He wanted to expel from the Union all of the people who did not subscribe to socialist realism. Even Berman did not agree to that.

[Question] After 1956 the scope of your influence on culture changed. You became the head of the Radio Committee. While your activity as minister of culture is assessed in very different ways, many listeners and viewers remember you as president of radio and television with emotion.

[Answer] I also remember that work with a great deal of sentiment. I began it as an already mature man, and I had a free hand in managing the Radio Committee, since I enjoyed Gomulka's trust. I had known him since 1926, and we left the PPS [Polish Socialist Party]-Left together. I think Gomulka remembered that during the so-called rightist-nationalist deviation I never spoke out against him. Even at the Central Committee plenum at which everyone accused him, together with Spychalski, Kliszka, and Moczar, Wladek Bienkowski and I were the only ones who did not speak out on that subject... I think that in the course of more than 10 years we were able to make radio and television into not only an instrument for relatively objective information, but also a source of cultural education. The theater of radio and television at that time won numerous international awards. There was a high level of entertainment, if I may recall just the New Year's performance, which did not resemble today's at all. The Radio Committee's strength was the collective that we were able to create, and also the party collective, which withstood

the periods of all the political upheavals. I remember that in 1956 I went to a clinic for a month for an operation on a hernia that had remained after the army. When I returned after a month, the storm had passed and it was already possible to talk with the leaders...

[Question] In 1972, however, you had to leave the Radio Committee...

[Answer] That was the way it had to be. During the last two years a great deal had been done to break up that whole collective. Jaroszewicz demanded the dismissal of various people, while I pretended that I was carrying out these orders, but in the end this came to light and I had to resign. I did not try to oppose this, and I consider that one of the wisest moves of my life.

[Question] A gradual decline in radio and television programs began, along with the propaganda of success...

[Answer] I think that one of the greatest mistakes of my successor was dismissing 900 program journalists. The consequences of that decision can still be felt today. In 1972, together with Rakowski and Gornicki, I developed a plan for reforming the propaganda system for the first secretary of the Central Committee. Gierak accepted the document, thanked us... and after a short time we were dismissed.

[Question] The period of your departure from various political posts was during the years 1972-1976. You ceased to be a member of the PZPR Central Committee and a Sejm deputy. Were these resignations "for reasons of ill health"?

[Answer] In my case the formula "at his own request" was used, although it was not in accordance with the truth. But after all, a person generally likes to occupy high positions. Today I bless the moment in which I resigned, but then... It is not simple when suddenly there are no telephones, the chauffeur is not waiting... You have to tell yourself, however, that a person should know how to resign at a certain moment, especially a writer. In my case, this made it possible to express publicly my personal views on some issues that interested me, but which I could not write about as a person performing official political functions...

[Question] But actually, among your numerous interests, one can perhaps distinguish three--politics, culture, and women. Which of these appeared first?

[Answer] These three things have come up at most of my meetings with readers. The first was politics. I was excited about these issues since I was a child. I read a great deal--Brzozowski, Zeromski, and Russian writers. Women did not yet exist for me then. As a young boy, in 1972 I joined the Union of Polish Socialist Youth--an affiliate of the PPS. At the age of 21, I became the general secretary of the PPS-Left. Culture is in second place. As you know, I write a great deal; I use various forms, with the exception of poetry, since my father, a professor of literature, informed me once that in that area I was a scribbler. This was also earlier, since I became interested in women at age

16... I think that the issue of partnership relations between a man and a woman has decisive significance for limiting human frustrations and preserving good spirits, even in the most difficult times. During meetings with student youth in 1981, I was asked, "Why are you still a communist, even though you know everything?" I answered, "In the first place, an old cardinal never unfrocks himself; that only happens with priests. In the second place, I love women; since I love women, I love life, and since I love life, I love socialism." At the time this was the only way that I could get applause and continue speaking.

[Question] As a person knowledgeable about politics and women, what do you think of women politicians?

[Answer] I think that women can engage in politics, although they themselves often do not like it. Let us tell ourselves frankly--all those so-called aunts of the revolution were really half-women. Admittedly, there are exceptions; this includes Wera Kostrzewa (Koszutska), and Roza Luksemburg was also a good-looking woman. In general, however, women who are engaged in politics are ugly and are somehow lacking in the sense of femininity. On the other hand, if a woman is able to combine the organizational sense that she has as a mother and "mistress of the house" with political thinking and a minimum of good looks, one can hope for her success or that of her politician husband. I must say that I immediately trusted Gorbachev because he has a pretty wife. Indira Gandhi was a beautiful woman at one time, and always took care of her appearance. And Margaret Thatcher? We may not like her politically, but one must admit that she combines in herself the characteristics of a housewife, a good organizer, and a world politician. And in addition to this, in spite of her 56 years, she still resembles a woman! One must remember, however, that women as politicians are mostly more ruthless and even crueler than us men. This also applies to the above-mentioned women prime ministers.

[Question] You have met women politicians. Which of them made the greatest impression on you?

[Answer] There have not been too many of them. The first was probably Maria Koszutska, whom I have already mentioned, the daughter of my mother's sister. She was a beautiful, intelligent woman. At present I could not give many examples. Perhaps Jadwiga Biedrzycka, the new vice marshal of the Sejm and the chairman of the League of Women. Unfortunately, women do not play a great political role in Poland. Besides, I have never liked the politician in a woman. The world of politics in general is not filled with women. I think that they are kept from this by a certain narrow-mindedness, and also by the fact that they have to devote an enormous amount of time to their families. This is natural, and a woman who goes beyond this stops being fully a woman, becoming a bit like Lady Macbeth...

[Question] You are one of the few journalists who include very personal themes in their memoirs. What is the purpose of shocking readers with your own erotic experiences? Is it deliberate?

[Answer] Completely deliberate--in the first place, so that people will read my books, which are after all mostly political. In this way I get publicity that I would not get otherwise, for example young people, who arrive at politics through issues related to morals and decency. In the second place, I want to show that communists are normal people, in man-woman relations as well. I recently spoke about this in an interview for PLAYBOY; some comrades besides expressed a little resentment of me for this, thinking that I had been too bold in some of my arguments... On the other hand, however, I maintain that as time passes my views are achieving more and more understanding. I am often invited to meetings, including meetings with workers, in order to speak about these matters. They understand perfectly that one should not be ashamed of one's life. I am sometimes asked whether the women with whom I have been associated and whom I describe in my memoirs are not offended by this. It is the other way around, however--they are happy! I was able to educate them, get them married in time, and arrange things for them. And in the second place, I write about them cordially. Obviously, these are not simple matters, and I realize that not everyone can permit himself to be so frank, simply out of a fear of being pecked to death. I think that this is an issue of the future--someone has to break the ground for this. I am in the vanguard because I do not have a great deal to lose.

9909

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POLITICS

POLAND

AMNESTY ACT EVOKES CRITICAL RESPONSE IN CATHOLIC WEEKLY

Columnist Calls for Lasting Solution

Katowice GOSC NIEDZIELNY in Polish No 35, 31 Aug 86 pp 1,3

[Article by Slawomir Siwek]

[Text] Recently the newly opened way of leaving penal institutions by a group of "non-criminal" prisoners has evoked a favorable response, but it is not a cause for euphoria.

Because of the very act of clemency toward these people by state bodies, new socio-political rules must be imposed so that it would be possible in the future to eliminate the words "non-criminal prisoner" from the language of politicians and publicists. In this regard I would anticipate the coming season in public life, after the vacation period, in the hope that these facts--not necessarily spectacular but explicit and aiming for everyone's conviction--will occur.

They must ensue after the fullest possible execution of the law enacted by the Sejm. The social purpose of the act should be to include in it all prisoners under that terminology.

For the faithful, this issue has two aspects. First, moral--putting people in prisons (this concerns not only those prisoners defined in the world as political, but also common prisoners) always raises the question, in is the best way to return them to society? The discussion on the social likelihood of exerting influence through the prisons is an old one and is carried on by moralists and attorneys. The second, social--is maintaining the causes that give rise to the existence of people who fall under given qualifications existing in the present legal system useful to society and the state?

Since the fall of last year, there have been facts in the church in Poland important to those who listen to the bishops. It seems to me that today is an excellent occasion to reflect on the collectively.

I have in mind three plenary conferences of the Episcopate that form a certain unequivocal series of great significance--the 210th conference in November 1985, the 213th in May 1986 and the 214th in June.

The bishops, in addition to other important church matters of course, dealt with the issue that interests me today. The issue was formulated "from conference to conference" in an ever more explicit context, ever more clearly addressed to us.

Social problems at the end of 1985 entered a somewhat more distressing phase. The number of non-criminal prisoners did not decrease and at the same time the state of public and economic affairs did not promote conclusions about total departure from crisis. In the communique following the 210th Conference of the Polish Episcopate [KPE] there is this statement: "The process of overcoming the social crisis continues to encounter difficulty, despite the longing of broad levels of society for peace and a mutual effort to improve the national destiny." I call attention to this sentence because it contains a certain explicit program derived from recommendations found in the social documents of the church as well as from an evaluation of the actual Polish situation and the attempt to apply these social recommendations to it.

The "program" can be expressed in one sentence: There is no way out of the crisis without authentic dialog with society.

The aforementioned communique also contained a reference to the problem of prisoners in this context. Their existence adversely affects social stabilization. On the other hand, "It is necessary to look for solutions to these issues in the creation of possibilities for and forms of social activity that allow constructive involvement by all citizens in action for the common good."

Action for the common good is not contrary to the possibility of a different vision of public affairs by people or groups of people. The constitution of the PRL offers many possibilities for action to such people too. If only the constitution were not subject to narrow interpretations by the bureaucracy and--as the fact shows--to legal restrictions of a lower rank--evidence for this is the need to appoint the Constitutional Tribunal and the latest stipulation creating an institution of "defenders of the law"--then many who now cannot find room for public action would accept this principle as sufficient. I do not deny that there are groups of people who see this too as minimalism. It is worth reminding them that possibilities that are merely "satisfactory" are more important than none at all.

Here we must move to the next recommendations by the bishops, addressed to lay Catholics during the 213th KPE: "Lay Catholics have the right and responsibility to actively shape the temporal order in the spirit of the Gospel, regardless of external difficulties. They have a duty to bear witness to the faith in public life, in the work environment and professional activity. They are obliged to react courageously to manifestations of moral wrong. Guided in their action by Christian conscience, they should have a feeling of their own worth and rights in the political community and express sensible concern for the proper development of the organizations of public life."

I call attention to the words right and responsibility. The so-called "external situation" often compels us to make such apathetic statements as

"nothing can be done." But we have received an unequivocal instruction that is in opposition to that apathy. Too often we forget about our rights, whose fulfillment is in our own hands. We have a duty to remind ourselves again about their existence. Caution in exercising these rights is restriction "from below" but our own worth is restriction "from above." The latter restriction puts a stop to apathy and powerlessness. A worthy person is also--in a social sense--a person who actively demands his just rights. It is a person who does not succumb to the worse social disease--the disease of powerlessness in the face of obvious moral wrong in the area accessible to him at that moment.

Such a merger of rights and responsibilities has nothing in common with the commonplace treatment of the conceptual agglomeration about the "oneness of rights and responsibilities."

However, it does have much in common with the problem of resolving social conflicts. For full respect for the rights of the human being and social and professional groups has a close connection to that which most rankles us today--the country's economic situation. It has been known for some time that all the most serious conflicts flow above all from the economic situation of the time under every political system. The Marxists even wrote this into their doctrine. But they do not always remember during various turning points how it falls to them to settle accounts.

During the 210th and 213th conferences our shepherds pointed to this mutual connection. They conveyed it even more clearly during the 214th KPE, saying, "The crisis of fundamental principles of ethics in social as well as economic life is spreading on this basis. God's commandments are broken. Still troublesome are alcoholism, including in the workplace, sexual freedom, disintegration of the family, transgressions against life, lack of respect for the common good, serious shaking of work ethics and corruption. Still difficult are living conditions and in industrial centers, the natural environment is being subjected to serious pollution. Overcoming these negative phenomena requires active participation and testimony of faith by believers in their economic, social and political activities. As Pope John Paul II said, 'The church has always taught responsibility for action for the common good and thereby has attempted to bring up good citizens in every country. The church has also taught that concern for the common good of society is a government's fundamental responsibility' (RH 17)."

Government concern for winning citizens over to work for the common good also means creating legal systems and mechanisms of public life that do not deter them from such participation. People, as I mentioned, have a free will and use that fact for this or that opinion of what happens and how it happens in their country. Imposing sanctions on the will that manifests itself in a "sound" way is imposing sanctions on the pluralism of society. Yet pluralism leads to elimination of the sources for the recurrence every so often of the problem of "uncommon" prisoners.

In 1980 an important agreement was reached in this matter and to this day no one has officially questioned it. It is necessary to remember this; it is necessary to remind ourselves of this.

The secret of the proper formation of relationships within a country, in order to give rise to social peace, is contained in this statement by the Holy Father: "The very fundamental purpose of a nation's existence as a political community is based on the fact that the entire society that comprises it--in a given instance relative to the nation--becomes the lord and rule of its own destiny." (RH 17).

Once again, we should be happy that possibilities for returning to normal life have been created for people deprived of freedom. But a lasting solution to this problem lies in the creation of permanent possibilities for manifesting the positive values that people hold for the good of their homeland.

Active recollection of this "right to social peace" has been presented to the faithful by Polish bishops not to bear witness to the truth but so that we would understand something of this better and longer.

There is also optimism here. It has been illustrated to us numerous times that apathy, the decline of hope, unbelief in our own possibilities is something that clashes with the fundamental values of Christian life.

Comparison to 1984 Amnesty Raises Questions

Katowice GOSC NIEDZIELNY in Polish No 34, 24 Aug 86 p 4

[Article by Janusz Bargiel]

[Text] On 17 July the Sejm enacted a law on special procedures for perpetrators of certain crimes. In the commentary on the law, much attention was drawn to its political significance and it was stressed that once again an opportunity has been created for groups of people who had fallen into conflict with the law for reasons described rather enigmatically as "non-criminal." But a more penetrating reading generates a series of questions as to whether that category of prisoners will be able to take advantage of the law. It seems to me a cognitively justified measure to compare the law of 17 July 1986 with the amnesty law of 21 July 1984.

One can see an important difference in the immediately in the preambles of both laws, despite similarities in wording. If it is emphasized in both that the laws was passed "with attention to progressive normalization of public life and fortification of the state (in this year's law "socialist" [state] is added) and guided by the principles of socialist humanism," then in the amnesty law it was said simply that it was enacted with the goal of creating possibilities for joining in active participation in the country's affairs for citizens who had committed crimes for political reasons and other less serious infractions and misdemeanors." In this year's law the division between political and criminal prisoners was abandoned, with the statement that early release from a sentence can occur because of the perpetrator's personal circumstances. Omission of the motives that guided the perpetrator in breaking the law has fundamentally affected the clarity and intelligibility of this year's law. If the amnesty law mentioned relevant articles of the penal code to which--if the perpetrators acted for political reasons or in connection with a strike or protest action--amnesty can be applied, then in the law

currently in force, the statement that it can be applied to crimes against the state or public order is sufficient, leaving the interpretation of these concepts to the prosecuting bodies.

Compared to the law on amnesty of 1984, the law currently in force has no application to the crimes outlined in the following articles of the penal code:

Art 128 in connection with Art 123--making preparations having as their purpose loss of independence, severance of part of the territory, forceful overthrow of the political system or impairment of the defense power of the PRL. (In 1982, 11 leading Solidarity members were arrested on just such charges; the leaders of the Temporary Coordinating Committee of Solidarity under investigatory arrest were also charged with crimes of this type);

Art 132--political sabotage;

Art 276--participation in a union having crime as its purpose;

Art 278--of which paragraph 1 reads: "Whoever takes part in an association whose structure or purpose is to remain a secret to state agencies, or which has been dissolved or refused legalization, is subject to imprisonment for up to 3 years." In the remaining paragraphs penal liability is sharpened for the execution of organizing or controlling functions. In the years 1983-84 the majority of the members of underground structures were charged under this article. Excluding it from the benefit of the law would suggest that the law is not applicable to people who came into conflict with the law in connection with continuation of this activity after Solidarity was declared illegal in October 1982.

Admittedly, in recent days the public was informed that Bogdan Lis and Adam Michnik had left prison; they and Wladyslaw Frasyniuk were sentenced in 1985 for the act described in Art 278 of the penal code. The Supreme Court remitted their sentence on the motion of the Prosecutor General of the PRL, but these--as one could surmise from the contents of the law--are exceptional instances.

The methods of proceeding against perpetrators to which the law may apply is also different. If the amnesty law of 1984 operated automatically and the courts began proceedings ex officio, then this year's law contemplates individual investigation of each case. The legislators gave the deciding vote to the prosecuting bodies; without their motions, proceedings cannot be initiated at all. This could create the dangerous precedent of shifting jurisdiction from the courts to the prosecuting bodies.

A cause for especially heated discussion is the notion whereby a court or prosecutor can make application of the law subject to the perpetrator's filing a written statement that he will not return to the path of crime. This is not a universally binding requirement, although the vice-minister of justice, in an interview with TRYBVNA LUDU, said that the courts should not shrink from fulfilling this stipulation.

This is a typical example of cupidity, an attempt to create reality according to one's own projection, with faith in the magic of words. The socio-political situation in our country will affect the further destinies of people who leave the prisons. Democratization of life and realization of reform seem to be more effective means, protecting these people from conflict with the law, than coerced declarations. The credibility of such statements is doubtful; and in the people who signed them a feeling of defeat and collapse will remain. This will not be the best basis for creating in them conditions for an appraisal of reality different from the one they had before they found themselves in prison.

[----] [Art 2, item 6 Law on the regulation of publications and performances of 31 July 1981. (DZIENNIK USTAW No 2, item 99) amended 1983 (DZIENNIK USTAW No 44, item 24)].

12776

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POLITICS

POLAND

ANTIWORKER LABEL FOR PREWAR PEASANT LEADER WITOS CHALLENGED

Warsaw WIES WSPOLCZESNA in Polish No 7, Jul 86 pp 98-112

[Article by Jan Borkowski: "Wincenty Witos, the Workers, and the Workers' Parties"]

[Excerpts] In our historiography the attitude of Wincenty Witos toward workers and the workers' movement has been greatly falsified. Witos is usually portrayed as being hostile to industrial workers and their political or union organizations or at least as a politician who had no understanding or sympathy for workers. There is not much here that has anything in common with the truth.

Witos came from an impoverished family background; he himself became a worker--a lumberjack; this is a very strenuous occupation, and he worked from dawn until dusk with his father at this exhausting job to make money to buy food. So, throughout his life he carried the memory of the hard physical labor of workers; he knew the position they were in, he understood them, and he had a sense of solidarity with them. He tried to do things to improve their lot, and he often supported their strikes. As chairman of the largest deputies club in the Constituent Sejm [1919-1922] he often had the final say on the passage of various bills that were especially beneficial to the general populace. Most of these laws were passed by the Sejm during 1919-1922, a period in which Witos was in fact looked upon as all but the kingpin of the country's legislature. In the Constituent Sejm deputies belonging to the "Piast" Polish Peasant Party club outnumbered the deputies belonging to all of the workers' parties combined. Were it not for Witos, none of the social legislation aimed at giving more rights to and improving the welfare of the working class would have been passed by the Sejm. This fact, a fact of critical importance for that matter, is ignored. The first-term Sejm (convened in November 1922) also passed a lot of labor legislation; in this Sejm too the deputies club run by W. Witos was in the majority and its members always voted for bills affording protection to working men and women and young people.

The best commentary on Witos' last words uttered in public comes from the pen of Ksawery Pruszyński [1905-1950; a politically active journalist in the prewar and immediate postwar period from an aristocratic-landowning family background], who was far from being a sympathizer of the Peasant Party, in

the form of an eloquently titled article "One More Time for Poland." Pruszyński writes: "Nevertheless, there was one big role left for Witos to play, and this is a role that will go down in history some day. He accepted the honor of being named vice president of the National People's Council. This was not an empty gesture. Witos could have turned down an appointment to any office; his age and state of health would have been justification enough for doing so. Witos agreed to serve in this office at a very difficult time for the nation [June 1945], a time marked by confusion and vacillation, uncertainty and doubt. What was the meaning of Witos' decision? Could it possibly have been a symptom of his lust for political power or prestige? No. What Witos wanted to tell the nation was this: 'Follow my example in trying to work together, seek to come to terms with the USSR, plant your feet squarely on the ground of the realities that are a product of wartime strife, and do the best you can to build this new Poland.' There cannot be the slightest doubt that a prominent man such as this would have entertained many reservations, many different opinions, and many doubts, but he was certain about one thing. Namely, that Poland's salvation would not come from afar, from overseas. Rather it would have to be fought for and won here, in the kinds of conditions that have already taken shape and are continuing to take shape with each passing day. Witos knew that if he declined to cooperate, if he did not take this position, such a step would generate suitable commentary both at home and abroad, commentary drenched in a very piquantly worded sauce at that. Witos did not want any of this. In the closing days of his life he--the man who had been premier in 1920--made yet another magnanimous gesture to demonstrate his trust and approval both in relation to that great nation, with whom we had been at odds for so many reasons in the distant and recent past, and also in relation to those political groups which used to be totally alien to him. This was no small, meaningless thing. On the contrary, it was of enormous importance. It will be appreciated only by those who know Poland well and understand the realities confronting our nation at the present time."

Any further comment would be superfluous. There is no need either to explain or expand upon the comments of Ksawery Pruszyński quoted above. This gets to the very heart of how Wincenty Witos felt about the Polish state and nation and the peasant movement.

Space does not permit a more extensive and detailed documentation of Witos' attitude toward workers and their organizations. The material I have produced above represents only a small fragment of the existing record of source documents. However, it is persuasive enough to enable one to see Witos as a popular leader who understood not only the peasantry, but also their--as he himself put it--brother workers and worked for the realization of their common national-political and class interests.

/6091

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POLITICS

POLAND

READER CONDITIONALLY APPROVES JOB CERTIFICATION

Warsaw TRYBUNA LUDU in Polish 20 Aug 86 p 4

[Text] The resolutions passed by the 10th Congress have been received with satisfaction by our brother workers, hoping that they would not remain on paper but become consistently and decisively implemented. Job certification is supposed to be among the factors meant to put our work and life in order. Truth to tell, quite a few workers have no clear idea what job certification means. Is that to be an isolated campaign, and who will be carrying it out--people seated behind their desks or otherwise those in the most menial jobs as well? Where will it be carried out--at industrial plants, steelworks, and coal mines and also in offices, transportation, trade, schools and other agencies? Owing to these questions and to the lack of clarity, many people are assailed by doubts.

I do not know what it looks like to other people but to me, job certification means sound organization of work. Just like the millions of hard working people in our country, I know from my own experience acquired over many years that in this respect, a lot remains to be done.

It has been stated by titled advisers that the so-called simple reserves have been exhausted. Looking from far down, one may see this problem in a different light. At every plant, bureau or agency, there are still quite a few reserves of such description. However, they have to be looked for not just by supervising every production line worker but also by watching those who are paid for preparing the jobs and work stations, raw materials supply, cooperation, distribution, etc.

The sound, overall organization of work does not solely depend on what is going on at the plant. For instance, if several buses are standing at the loop (and this happens quite often), their drivers jabbering in a carefree way while people are waiting at bus stops and are late at the factory gate, then production is affected by transportation as well. There are a number of matters by which a worker's job is affected. Are there many industrial plants in Poland where a machinist miller, a lathe hand, a grinder find at their machine tool materials, drawings, instrumentation etc. waiting for them? Are these not simple reserves?

And maybe in the course of the job certification campaign one could give some people a kick in the pants so that they realize that it is up to them as well what and how much is produced, remaining to be shared on pay day.

It has been quite a while since suitable work organization should have been introduced in Poland--it has been so in other socialist countries and also capitalist ones where every cent and every wasted minute count. When the work is properly organized, an end must be put to pampering lazy fellows and wise guys living at the expense of others' toil. There are quite a few of them at industrial plants. People's Poland must stop being their sugar daddy.

Therefore, when carrying job certification out, with production line workers taking part, let us remember not to omit people by whose behavior the end results of our work are affected in a variety of ways.

Waclaw Kluczewski, Warsaw

5174/12947

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4 November 1986

POLITICS

POLAND

GENERATIONAL DIVISIONS NOTED IN RURAL AREAS

Warsaw TRYBUNA LUDU in Polish 20 Aug 86 p 4

[Text] What is the use of having ZMW members occupy rural self-government seats in their capacity as rural commune or voivodship councilmen when quite a few of them are remaining passive? And we did not cast our vote for them in order to see them listening with utmost attention to speeches delivered by old, titled politicians whose chests are covered by orders and medals. In the course of elected leaders' debates, the opinions must be represented as voiced by our organization, by the rural youth as a whole.

To my mind, the distance has been growing between the 'high' rural commune authorities, and the organization of rural youth. This is preposterous, and slows the rural commune's social and economic progress down. However, our young activists will be unable to make a lot of changes unless they are considered partners, and dealt with in a friendly way by the local authorities.

These are no mere words. Two examples: In two villages, ZMW circle members decided to erect rural clubs. Such clubs can certainly become meeting places of young and old people at solemn and less solemn occasions. And what happened? At Swinin, one of the two villages, the young builders have for many years struggled with purely administrative problems. They have not erected anything even though they had plans and construction materials prepared and displayed eagerness and energy. In Karczewiska, the other village, the contrary occurred. A tiny, nine-man youth group managed within 3 months to renovate a tumble-down building of no use to anyone. And a club opened, envied by the entire commune. The total cost of renovation is estimated at over a million zloty. And this could only happen because the village youth enjoyed the support lent by all the commune authorities. The construction site was frequently visited by both the chief and the secretary of the commune and, the other way round, the young people were acquainting the authorities with their problems. And there was something else of importance--today when one hears all the time that industrial plants and other agencies do not wish to help any strangers, Karczewiska club construction was helped by as many as nine small businesses and cooperatives.

This means that by joint efforts, truly major projects can be completed. However, there is a fundamental condition--full understanding of social welfare needs by both the upper and the lower layers. And the invisible barriers must be broken down which divide the authorities and youth organization rank-and-file activists.

Halina Broszkiewicz, Legnica

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POLITICS

POLAND

READER ATTACKS ECONOMICS EDUCATION METHODOLOGY

Warsaw TRYBUNA LUDU in Polish 20 Aug 86 p 4

[Text] According to the 1983 cadre census, there were in Poland 245,000 people employed as economists. However, fewer than 83,000 of them held an academic degree.

Considering the low level of their professionalism, it is believed (and rightly so) that the title and profession of economist are in general being abused. It is a fallacy to call an economist any typist who, sensu stricto, is just a paper-shuffling office worker. The inordinate image of professional economist as just an office worker is among the reasons behind the frustration of that group of government employees. Other reasons: Inadequate use made of the worker's skills, an incorrect range of activities, lack of development opportunities within the framework of one's profession, low salary.

Unfortunately, the degradation of this profession remains a hard fact. Why? First of all, in the years just gone by, the position of an economist was shaped by the centralized-directive management system. Under the conditions of a concern's limited autonomy, the role played by an economist boiled down to performing minor jobs, requiring no inventiveness but resulting in the low value of his work. In other cases, he was entrusted with more sophisticated tasks, however in rigid accordance with guidelines imposed from above.

The reform is painfully breaking through the complex reality--we continue learning self-dependence and autonomy, and trying to set up an optimum motivation system. Without any exception whatsoever, all of us are facing ambitious tasks. We are about to enter the second, much harder stage of reform. Can we afford to weaken the driving force, i.e. the rational use of the cadre of economists? Of course not, provided however that such rationality will be accompanied by a thorough rehabilitation of the economists' profession. It would seem that the relevant steps should follow three directions:

-- Reorganization of economics studies, stressing their general humanization. Also in this connection, the specialization problem should be reviewed. Both these factors should guarantee the training of highly-qualified, universal-profile cadres. The usefulness of such profile will avoid its being lowered in connection with the frequent changes in economic parameters in their use as management regulators. And perhaps economists should be trained the way

medical students are: Uniform studies for all, to be followed by specialization.

-- The profession to be granted legal protection. The abuse of the title of economist results in the paradoxical situation of the apparent decline of the profession--everyone being a bit of an economist, who is a genuine one? The legal protection should in addition lead to the economists' remuneration being made equal to that of a plant's civil engineers.

-- The final definition of the geography of those employed in the profession together with their work conditions being reviewed. An ideal opportunity for such changes is now offered by the general review and certification of work stations. Fair job certification must bring the level of plant management closer to scientific organization of work. This will, obviously, enhance the role played by economic cadres.

Tadeusz Krzewski, civil engineer, Dobrzeńce

5174/12947

CSO: 2600/673

SOCIOLOGY

HUNGARY

KEY PROVISIONS OF NEW EDUCATION LAW EXPLAINED

Budapest FELSOOKTATASI SZEMLE in Hungarian No 7-8, Jul-Aug 86 pp 385-392

[Speech by Imre Torok, chief of a main department at the Ministry of Culture and Education: "Timely Tasks of the Education Law's Implementation in Higher Education"]

[Excerpts] The Politburo's 1981 standpoint and, subsequently, the 1984 resolution of the Council of Ministers prescribed what must be done to modernize our higher education, but they have not specified how to work out the solutions. This "how" is what we are seeking now, in the course of elaborating our extensive tasks.

1. By 1 September 1986, when the Education Law becomes effective, new or revised statutory regulations will have been issued that basically determine the life of our higher educational institutions. These are regulations which govern the following:

- The organization and procedures of higher educational institutions;
- The university and college curricula and examinations;
- The students' disciplinary code;
- Admission to higher educational institutions;
- The fees payable in higher education; and
- State aid for students.

An essential aspiration to democratization permeates the entire Education Law. Its purpose is to replace the formerly rigid and often one-sided relationships between the administrators and the administered, with a partnership based on the higher educational institutions' broadening independence.

With the promulgation of the new statutory regulations, both the higher educational institutions and the administrative central agencies will be shouldering more responsibility. As the independence of the institutions, especially of the higher educational institutions, broadens under the new system of

administrative supervision, direct "tutelage" by the ministries will cease. Which of course cannot mean the shedding of responsibility for administrative supervision, but our responsibility will be limited in future mainly to questions of strategic importance. The wide opportunities arising for the institutions are also a responsibility to exercise their broader independence, within the limits specified by the Education Law and the statutory regulations implementing it.

I must also emphasize that we cannot afford to breathe easier once the new Education Law and the mentioned statutory regulations are in place, because as of 1 September there will begin work substantively of a new type, but at least as responsible as before. This will impose an enormous burden primarily on the institutions: on the basis of the statutory regulations, they will have to prepare their own internal rules. Naturally, we will be providing professional assistance for this work, but the institutions themselves will have to carry it out.

What are the basic requirements which the institutions preferably ought to take into consideration in their internal rules?

--In the course of the statutory regulations' local implementation, we expect the institutions to help achieve the objectives formulated in the Education Law, and we request also the party organizations' assistance to this end;

--The institutions' internal rules must be in accord with the stated objectives of the development program that the Politburo and the Council of Ministers have approved: thus with the improvement of quality, the expansion of democracy, and greater responsibility;

--The internal rules should contribute toward the unfolding of the institutions' independence, and simultaneously toward expanding and making more meaningful the institutions' relationship with their environment in the wider sense;

--The internal rules should enable faculty members and students to participate jointly in the successful realization of their institutions' basic tasks.

a. In the rules of organization and procedure, this will be the first time that the organization and procedures of the universities and colleges will be regulated on the basis of uniform principles. The Education Law has made this legally possible.

The new law assigns many tasks and powers to the institutions. To promote the modernization of the institutions' internal organization and their democratization, there will now be much wider opportunity for the delegation of authority within institutions.

The institutions interested in education (research) will be better represented in various bodies than before.

A new and very important feature of the law is the appearance of the organs and collectives of student self-government.

b. The very many new elements contained in the provisions of the Education Law have served as the basis for devising the rules on curricula and examinations. In these rules, too, we have strived to give the institutions more independence than what they had previously in deciding matters pertaining to their students.

c. The decree on admissions does not introduce any fundamental change.

d. At the time of drafting the provisions concerning the disciplinary codes of higher educational institutions, we were aware that in many respects the present law had determined the institutions' disciplinary codes for a long time and in this sense had proven essentially durable. The new law merely clarifies certain details. For example, we have provided unambiguous and detailed rules on disciplinary proceedings. With the clear provisions we wished to ensure that the institutions would be able to conduct disciplinary proceedings smoothly and professionally.

e. The system of fees payable in higher education has changed significantly in several respects.

There were lively debates on tuition fees in higher education, with arguments both for and against. The essential elements of the draft sent for debate to the institutions were in accord also with the principles formulated in the statutory regulations on state aid. This way we have been able to devise a unified system of incentives. Also for this reason it has been necessary, among other things, to amend and restate the statute on state aid for students.

The heads of the higher educational institutions should note that, until their new internal rules are adopted, only those provisions of the present internal rules will apply that are not in conflict with the provisions of the Education Law.

2. In addition to drafting the new statutory regulations, modernization of the network of higher educational institutions is another important timely task that has been occupying all of us for years.

Accordingly, there are specific measures that can and should be adopted already now, but the network's transformation on the desired scale will be a longer, strategic process.

Essential in the task of developing the network of higher educational institutions is not whether there will be one, two or three institutions fewer (or perhaps more), but how--with what kind of network, what structure of institutions, and what organization of instruction and research--will higher education be able to perform its set tasks better than at present.

There are also other factors that must be taken into consideration in the course of elaborating this task.

According to the data at our disposal, we have to expect an increase in the demand for recent graduates. The national economy's structure is undergoing transformation; more small enterprises and businesses are being formed; and services are expanding and undergoing differentiation. All this, too, will

enhance the role and importance of intellectual work. The intellectuals who were trained in the 1950's, within the suddenly increased admission quotas, will now be retiring in large numbers during the next few years.

The demographic bulge which will reach university and college age from the early 1990's on, and which is expected to increase the demand for higher education, will exert more pressure on the higher educational institutions. Their present capacity will hardly be able to accommodate the enrollment that will be necessary within a few years from now. Of the secondary-school students taking their final examination in the 1980-81 school year, 37 percent were admitted to colleges or universities. For the class of 1985-86, this proportion was 33 percent. At an estimated enrollment of 16,700 regular students in the class of 1986-87 (an increase of 200 over the class of 1985-86), only 31 percent will be admitted to colleges or universities. Even if we increase to 20,000 regular students the enrollment in the class of 1995-96, only 28.6 percent of the secondary-school students taking their final examination will become college or university students. This declining trend would cause social tensions and professional shortages.

Higher education will be able to supply the future demand for specialists, respectively the demand for admission, only if its training function is differentiated and if it undergoes quantitative development.

3. The new requirements for faculty members, their number and more efficient use are the most critical among our tasks, and the most delicate aspect of seeking solutions.

In May 1985, the MSZMP Central Committee's Agitation and Propaganda Committee studied the situation in appointing senior faculty members (professors and docents) and offered guidelines for formulating the new requirements that faculty members must meet. The draft now released takes these guidelines into consideration. In preparing the draft, we have strived to gain extensive information and incorporate a wide range of views. The draft is the work of a committee of experts. In the course of drafting, we repeatedly consulted university officials and experts. We presented the draft also at the conference of university rectors, and the comments made there were used to further refine and improve the final draft.

On this occasion I do not wish to dwell in detail on the new set of requirements, but will outline instead the problems for which we are seeking solutions.

a. At present there is no mobility and interchange, or at least not enough, among the specialists of the higher educational institutions, research centers and production.

b. The situation that evolved during the period of extensive development must be altered. Many faculty members drifted to higher education, good, mediocre and weak ones as well. The constant faculty expansion enabled even those faculty members to remain who do not fully meet the present requirements professionally, morally or as individuals.

c. The age structure of faculty members is unfavorable. Yet, higher education is stagnating and dying without a vigorous proportion of young faculty members, and if there is no stimulation also from below.

d. The composition of faculty members is unfavorable also in terms of their assignments. The movement up to now had to be limited by administrative means. The complexity of teaching and research demands the development of a composition tailored to the tasks also in this respect. Stricter requirements are warranted also in general, so that only school-founding personalities of outstanding ability who meet the threefold requirements may become senior faculty members.

e. The institutions have few incentives to manage wages and personnel efficiently. Additional duties aside, increases are shaped by bargaining. Whereas it would be desirable that the own interests of the institution (faculty, department) determine the faculty members' composition, number and salaries.

1014

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4 November 1986

SOCIOLOGY

POLAND

ALCOHOLISM AMONG MINORS INCREASES

Warsaw ZYCIE WARSZAWY in Polish 22 Aug 86 p 2

[Text] About 2,000 children and young people appear every year at the Militia Juvenile Department of the Warsaw office of Internal Affairs at Wisniowa Street. Close to 200 of those either admit it or are found out to abuse alcohol.

Andrzej, not yet 16 years old and still a primary school student, a fugitive from a correctional institution, was apprehended after 2 weeks while trying to steal in a streetcar. Afterwards he admitted that he needed the money to buy wine and that in the past, when already under the influence of alcohol, he had often committed similar thefts.

Artur, from Warsaw, the same age, was brought in for the second time to the juvenile authorities; this time for taking part in a fight. He was drunk then. At home--it was found out--his father often drank too much.

Lidia, one year younger, also from Warsaw, has been drinking for the last few months on various occasions in the company of friends. Her mother does not know much about it. The girl did not finish school yet. There is suspicion that she was persuaded to become a prostitute. She was apprehended in a drinking joint.

In July a 16 year old boy, a pupil of a correctional institution where he was sent for robberies and thefts, was brought to DUSW of Warsaw-Praga-North. He did not return to the institution after his furlough pass expired and in the meanwhile added to his list of crimes by beating up a woman and stealing a motorcycle. After getting together a larger sum of cash he and some friends bought 20 bottles of wine and started boozing on a street bench. His father was an alcoholic, the mother does not pay much attention to the son.

The following cases were also included in the militia's statistics of this year: a 17 year old boy died in a joint after consuming too much alcohol; a 14 year old girl was making a living by selling alcohol.

Last year 1600 minors committed criminal acts under the influence of alcohol and that constituted about 5 percent of all perpetrators in this category. In comparison, among adults 25 percent of all crimes perpetrators are drunkards.

The minors were mostly arrested for robberies, burglaries, thefts, battery. During that time, 2619 minors--below the age of 18 were brought to the sobering-up station. Among them 163 girls, 511 children and young people were held to be sober up in detention centers of the militia.

In an interview with a PAP journalist, Lieutenant Colonel Stanislaw Zawadzki, from the Office of Prevention KG MO, adds to those statistics that 85 percent of crimes against family members, guardians and minors are committed by persons under the influence of alcohol, either drunk or in any case not sober at the time. The phenomenon of various forms of alcohol abuse by the very young children and youths, even though not yet reaching alarming proportions, is considered dangerous by the investigating agencies. Unfortunately young people look for role models among their immediate surroundings, first of all in their own families.

The officers of the Militia Juvenile Department--continued further Lieutenant Colonel Zawadzki--come out with proposals of concrete, material assistance. This includes, for instance, subsidy in the form of new clothing, ensuring daily dinners in school cafeterias for children from chronic alcoholic families, ensuring accommodations in summer camps and winter vacations for so-called 'endangered' children and youths. In compliance with the recommendation of the Juvenile Department, older youngsters are often directed to volunteer work brigades or to enterprises which guarantee schooling in the vocational school of that enterprise.

The implementation of that assistance is controlled by numerous social administrators in cooperation with the militia. All these undertakings are part of a broad idea of preventive measures, protecting the young people from the results of alcohol abuse, consequences of alcoholism, one of the most dangerous social ills.

12470/13104
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SOCIOLOGY

POLAND

MORE PRECISE ANTIALCOHOL MEASURES CALLED FOR

Warsaw TRYBUNA LUDU in Polish 27 Aug 86 p 2

[Text] Last Tuesday a meeting of the Committee to Counteract Alcoholism took place in the office of the Council of Ministers. Deputy Premier Zbigniew Gertych, chairman of the committee, led the discussions. This time the main subject of the debates was: matters of legislation.

The problem is that the Sejm's law about "educating in the spirit of sobriety and counteracting alcoholism" is in some of its sections formulated rather imprecisely, making it possible to evade its basic recommendations. In many instances the executive orders and additional nationwide and local regulations were not consistent, which often lead to only insignificant results in the struggle against alcoholism.

This situation caused the matter to be brought to the Constitutional Tribunal which recommended clarification of some of the regulations. The main problem was to determine the number of sales-places of beverages with alcoholic contents of more than 4.5 percent. The Council of Ministers prepared an outline of a decree in this matter, which among others, became the subject of discussion by the members of the committee. There is a decision which says that the number of places where alcohol is being sold cannot exceed 33,350. This surprised some members of the committee, because this proposed upper limit exceeds by a few thousands the number of presently existing sales-places. But these are the mysteries of distribution; apparently in those calculations the future was always taken into consideration.

The new legal act contains the decision that a voivod, after consulting the appropriate WRN Committee, has the right to cut the number of locations selling beverages containing more than 18 percent alcohol, which excludes beer and wine. This seems to coincide with the majority of other countries with growing preference for beverages with a low alcoholic content. The above plan met with extremely diversified reactions; the opinion of the commission will be shortly presented to the administration.

Some problems of legal nature also came up during the debates on the subject of the Council of Ministers' regulation in the area of travel insurance. First of all there was a discussion about whether insurance should be paid to those who cause accidents while under the influence of alcohol. Secondly,

whether two different situations should be acknowledged--a condition indicating the consumption of alcohol (0.2) and then a condition of intoxication (0.5).

And a new thing: some of the accidents are caused by drug addicts and also by people being under the influence of psychoactive medicines, whether tranquilizers or energizers. What to do about all this? For the time being there is no answer.

Then also matters of more general nature were discussed, in particular the fact that the antialcohol struggle is not exclusively a legal matter, even though the law must be precise. This is also a matter of social consciousness, traditions and customs. We must definitely intensify the society's efforts in its actions against alcoholism and drunkenness, and improve the educating process. Otherwise the struggle with this plague will be futile.

12470

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END